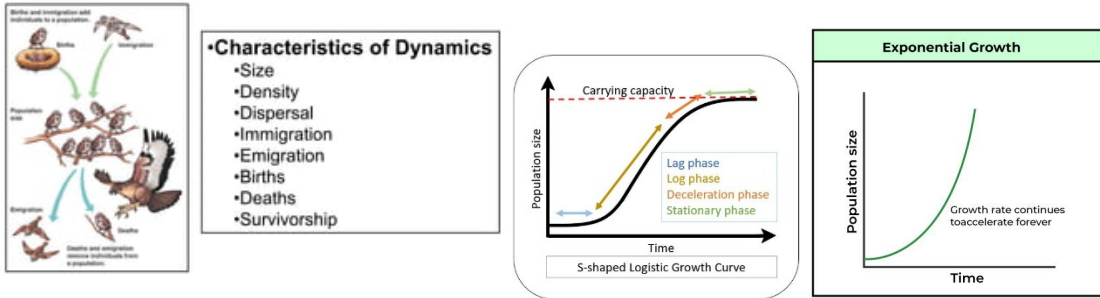


Day 16 - Biology - 9-19-24 to 9-20-24

## CLASSWORK (15 min) – Populations

**NO CELL PHONES, EARBUDS, HEADPHONES**-Submit on Schoology when completed.

### Population Dynamics



### 1) LAB ACTIVITY: Population Dynamics (15 min)

1) Write a “Pre-lab report.”

2) Go to the interactive simulation:

<https://media.hhmi.org/biointeractive/click/populationdynamics/#/>

Click on the **logistic** growth model. Play with the model and write your observations about how certain changes in values have certain outcomes. Pay particular attention to how moving the time slide button changes the graph.

Now click on the **exponential** growth model. Play with the model and write your observations about how certain changes have certain outcomes. Once again, pay attention to how moving the time slide button changes the graph.

## **2) VIDEO NOTES (24 min):**

a) Population Growth Models: Mr. Sinn

<https://www.youtube.com/watch?v=MjRezc-h2zY>

b) Global population growth: Fuse School

<https://www.youtube.com/watch?v=Fvgit57mpZw>

c) Human Population Dynamics: Bozeman Science:

<https://www.youtube.com/watch?v=DqKg5rWLpEo>

### **3) EXPLAIN/DRAW:**

Take a sheet of blank paper, holding in “hamburger” format, and fold to make 4 boxes. Explain, illustrate, and label your drawings. **Your text can be in pen, but your drawings must be in colored pencil.**

**The first draft of the assignment due on Schoology before the end of class.**

### **FRONT**

#### 1) Immigration vs Emigration

<https://flexbooks.ck12.org/cbook/ck-12-biology-flexbook-2.0/section/6.19/primary/lesson/population-growth-bio/>

#### 2) Factors that increase population

<https://flexbooks.ck12.org/cbook/ck-12-biology-flexbook-2.0/section/6.19/primary/lesson/population-growth-bio/>

#### 3) Factors that decrease population

[https://bio.libretexts.org/Bookshelves/Introductory\\_and\\_General\\_Biology/Introductory\\_Biology\\_\(CK-12\)/06%3A\\_Ecology/6.19%3A\\_Population\\_Growth](https://bio.libretexts.org/Bookshelves/Introductory_and_General_Biology/Introductory_Biology_(CK-12)/06%3A_Ecology/6.19%3A_Population_Growth)

#### 4) Population natural growth rate formula

[https://bio.libretexts.org/Courses/University\\_of\\_Pittsburgh/Environmental\\_Science\\_\(Whittinghill\)/14%3A\\_Population\\_Ecology/14.02%3A\\_Population\\_Growth\\_and\\_Regulation](https://bio.libretexts.org/Courses/University_of_Pittsburgh/Environmental_Science_(Whittinghill)/14%3A_Population_Ecology/14.02%3A_Population_Growth_and_Regulation)

### **BACK**

#### 5) What is population density? What is dispersal?

[https://bio.libretexts.org/Bookshelves/Introductory\\_and\\_General\\_Biology/Introductory\\_Biology\\_\(CK-12\)/06%3A\\_Ecology/6.17%3A\\_Population\\_Size\\_Density\\_and\\_Distribution](https://bio.libretexts.org/Bookshelves/Introductory_and_General_Biology/Introductory_Biology_(CK-12)/06%3A_Ecology/6.17%3A_Population_Size_Density_and_Distribution)

#### 7) What is carrying capacity?

<https://www.britannica.com/science/carrying-capacity>

#### 8) What are density dependent limiting factors?

<https://www.khanacademy.org/science/ap-biology/ecology-ap/population-ecology-ap/a/mechanisms-of-population-regulation>

#### 9) What are density independent limiting factors?

<https://www.khanacademy.org/science/ap-biology/ecology-ap/population-ecology-ap/a/mechanisms-of-population-regulation>

#### **4) HOMEWORK:**

- 1) Complete the **Lab** assignment.
- 2) Complete the **Video Notes**.
- 3) Complete the **Explain/Draw** assignment.

*Submit on Schoology as soon as complete.*