

## Biology Chapter 5 Populations

Pages 119-127

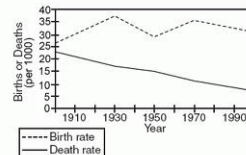
Objectives: Students will

- A) Define three important characteristics of a population.
- B) Summarize how four factors affect a population's size.
- C) Compare exponential to logistic growth.
- D) Define limiting factor.
- E) Compare density dependent to density-independent limiting factors.

B) Summarize how four factors affect a population's size.

### The Four Factors:

- 1. Birth Rate = Number of individuals \_\_\_\_\_
- 2. Death Rate = Number of individuals that \_\_\_\_\_



- If birth rate is greater than the death rate  
the population will \_\_\_\_\_

What happened to the size of this population?

- From 1950-1970
- From 1930 to 1950
- From 1900 to 2000

- If birth rate is less than the death rate  
the population will \_\_\_\_\_

A) Define three important characteristics of a population.

Vocabulary Word	Link Word	Reminds me of?
Population Density		

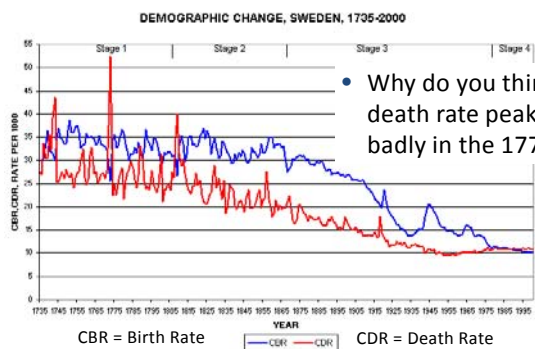
- Which has the higher density and why?

Vocabulary Word	Link Word	Reminds me of?
Geographic Distribution		

- Which has the larger geographic distribution?

Vocabulary Word	Link Word	Reminds me of?
Growth Rate		

B) Summarize how four factors affect a population's size.



- Why do you think the death rate peaked so badly in the 1770's?

- Write at least a 3 sentence quick-write analyzing how the population of Sweden has changed from 1735 to 1995.

B) Summarize how four factors affect a population's size.

**The Four Factors:**

- 3. Immigration = Movement \_\_\_\_\_ a Population, introduction of a \_\_\_\_\_ specie
- 4. Emigration = Movement \_\_\_\_\_ of a Population, \_\_\_\_\_
- What happens to a population's size from immigration?
- What happens to a population's size from emigration?

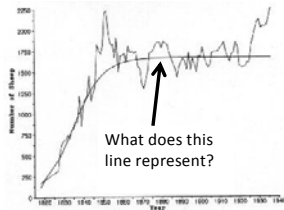
D) Compare density dependent to density-independent limiting factors.

- |   |   |
|---|---|
| • Density Dependent Limiting Factor =                               | • Density Independent Limiting Factor =                                     |
| Factor that becomes _____ only when the population is _____ (_____) | Limiting Factor that affects _____ of the populations no matter what _____. |
| 1.  | 1.  |
| 2.  | 2.  |
| 3.  | 3.  |
| 4.  | 4.  |

C) Compare exponential to logistic growth.

- |   |   |
|---|---|
| • <u>E</u> xponential Growth                  | <u>L</u> ogistic Growth                         |
| What does an exponent do to a number amount?  | Resources become _____ available                |
| _____ conditions with _____ Populations _____ | Population growth _____ or _____ curve on _____ |
| _____ curve on graph                          |   |

- On the following graph, circle and label the exponential and logistic growth.



**Understanding Check**

- Why do population sizes in an ecosystem change? Write a summary answering this question. Your summary must include at least 4 sentences and 3 words from the Ecology Unit Word List.

D) Define limiting factor.

Vocabulary Word	Link Word	Reminds me of?
Limiting Factor		

- List at least 4 factors that you believe will cause a population to decrease. Talk to your partner.
- 1.
- 2.
- 3.
- 4.