**Look at the ecosystem below.** *Identify 2 biotic and 2 abiotic factors*.

|  |  |  |
| --- | --- | --- |
| **Biotic Factors** |  | **Abiotic Factors** |
|  |  |
|  |  |

**All biotic and abiotic factors are interrelated: a change in one factor will affect other factors.**

*Describe how a change in one abiotic factor that you identified may affect one of the biotic factors.*

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**For more information on limiting factors, watch this video and take notes:**

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| **Video:** [Limiting Factors in an Ecosystem](https://www.youtube.com/watch?v=pPw51fDTl68) (2:08) |
| **Definition of Density Dependent Limiting Factor****& example** | **Definition of Density Independent Limiting Factor & example** | **More examples of Abiotic & Biotic Limiting Factors** |
|  |  |  |
|  |

**How does a population grow?**

**Take notes from this video:**

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| --- |
| [Ecology - Lesson 2: Populations](https://www.youtube.com/watch?v=w0KIdc_I-Yo) (2:34 min) |
| **How populations increase** |  |
| **How populations decrease** |  |

*With a partner, list factors that increase a population’s growth and factors that decrease a population’s growth, and fit them into the equation format provided below. *

**Exploring Bacteria Population Growth**

The graph below contains data for the population growth of a hypothetical bacteria population.

* *Identify the trends (pattern) in the population size. You should note two observations.*
* *Based on the graph, what do you observe about bacteria growth?*

* *Construct an explanation for why bacteria don’t take over the world.*