

**Bozeman AP Environmental Science | Big Idea #3 - Population**  
**012 - Population Ecology**

Name: \_\_\_\_\_ Block/Period: \_\_\_\_ Date: \_\_\_\_\_

**Students:** It is recommended that you watch the video with subtitles ON; be prepared to pause and rewind. The video is ~10 minutes long, but this worksheet will take you around ~30 to 35 minutes to complete. There will be a review / discussion afterwards requiring you to record corrections AND summarize additional material / information.

Description (-½ point for each time the rubric is not followed)	Point Value
Each question has been answered	0   ½   1
Each question has been answered in a full sentence	0   ½   1
Each answer has avoided 'it' or 'they' statements, by being clear on the topic of the answer	0   ½   1
<i>Review:</i> Answers that were incorrect are corrected, <i>in a different color</i>	0   ½   1
<i>Discussion:</i> 2 OR more <i>summary</i> statements of the additional material / information, <i>in a different color</i>	0   ½   1
Score:	____ / 5

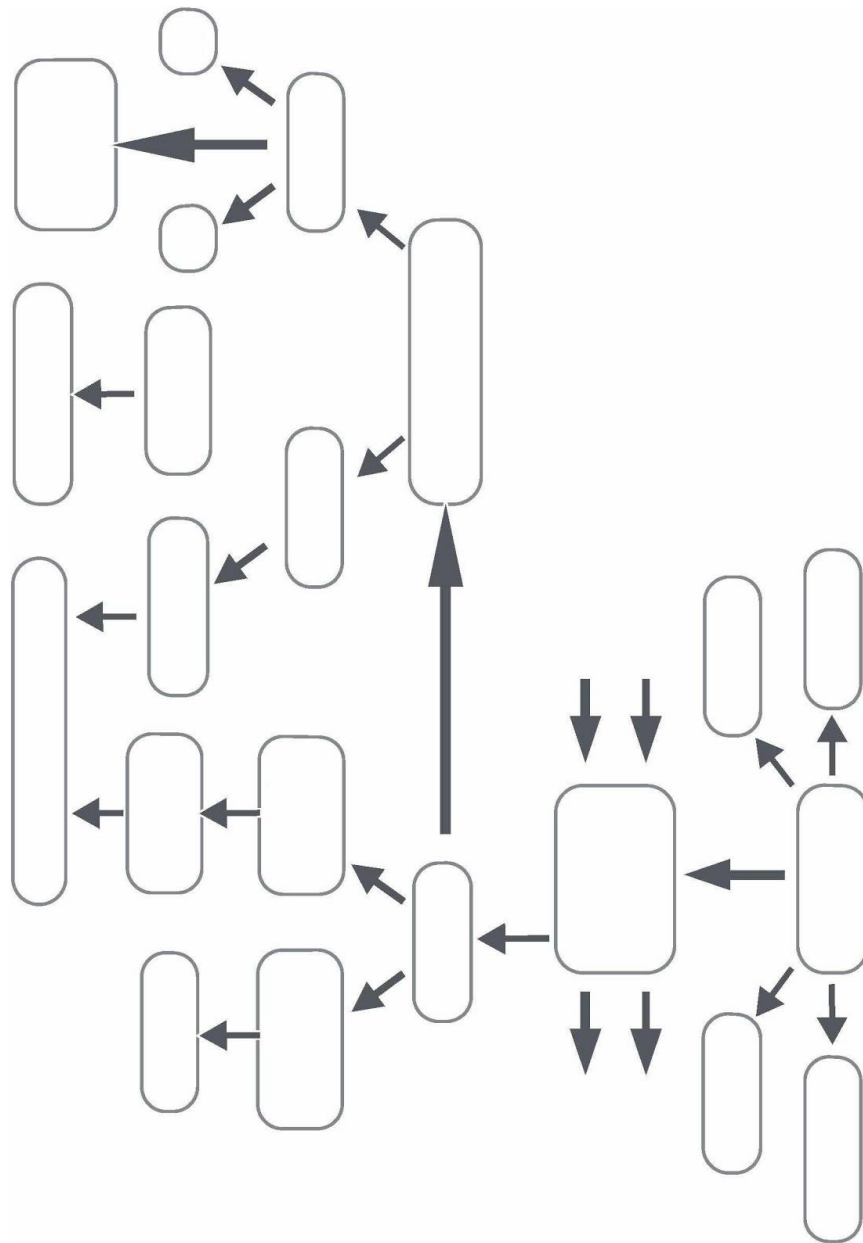
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1. **Describe** the conservation story about the Whooping Crane.

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2. Listen to Mr. Anderson describe the various parts of the concept map, and pause after he reveals a new word, and filling in that word.



3. **Define** (N) value when evaluating a population.
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4. **Define** Population Density.

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5. **List** the 3 ways that a population can be Distributed.

i. \_\_\_\_\_

ii. \_\_\_\_\_

iii. \_\_\_\_\_

6. **Describe** Sex Ratios vs Age Structure.

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7. **Draw & Explain** how the rabbit population changes in the example from the video. Make sure to include how the math is setup.

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8. **Define** Carrying Capacity (K).

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9. **Analyze** why reaching Carrying Capacity is not a perfect mathematical relationship.

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10. **Define** Density-Dependent factors.

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11. **Define** Density-Independent factors.

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12. The mathematical constant  $e$  is = \_\_\_\_\_

13. **Draw & Describe** a J-Shaped curve. (related to the rabbits example in the video)

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14. **Draw & Describe** an S-Shaped curve. (related to the rabbits example in the video)

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**15. Analyze** why most populations follow an S-Shaped curve in nature.

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**16. Define** K-Selected species and **Describe** their primary characteristic.

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**17. Define** r-selected species and **Describe** their primary characteristic.

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**18. Describe** the Predator-Prey relationship.

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**19. Describe** the 3 types of Survivorship Curves.

- i. Type I - \_\_\_\_\_
- ii. Type II - \_\_\_\_\_
- iii. Type III - \_\_\_\_\_