

## SUBDOMAIN 114.2 - SYSTEMS OF NATURAL SCIENCE

**Competency 114.2.3: Ecosystems** - *The graduate analyzes the components, organization, interactions, and processes of ecosystems.*

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### Introduction:

"An ecosystem consists of all the organisms living in a community as well as all the abiotic factors with which they interact" (Campbell & Reece, 2005). There are many different types of ecosystems all over the world. Humans can have a great impact on these ecosystems.

In this task, you will choose a specific ecosystem to research and analyze the impact of humans on that ecosystem. Be specific in your selection. (For example, instead of choosing "desert ecosystem," select a specific desert ecosystem such as the Mojave Desert.)

Some examples of specific ecosystems are the mangrove swamps of Borneo, the old-growth forests of the Pacific Northwest, the Florida Everglades, the Sonoran Desert in Arizona, the Costa Rican rainforest, the ephemeral pools in Canyonlands National Park, a particular lake or forest, etc.

### Task:

A. Create a multimedia presentation (e.g. PowerPoint, Keynote) (*suggested length of 6–8 slides*) that introduces and describes your chosen ecosystem, analyzes the impact of human activity on the ecosystem, and provides guidelines to help preserve your chosen ecosystem. Do the following in your presentation:

1. Describe the specific ecosystem that you have selected by doing the following:
  - a. Identify the specific geographic location of the ecosystem.

*Note: You can use maps, written description of location, and latitude/longitude to provide the location of the ecosystem.*

- b. Explain the major biotic and abiotic components of the ecosystem.
  2. Discuss the impact that humans currently have on the specified ecosystem.
  3. Predict the effect of future human impact on the specified ecosystem.
  4. Provide guidelines regarding human activities that will aid in preserving the specified ecosystem.

B. When you use sources, include all in-text citations and references in APA format.

*Note: When bulleted points are present in the task prompt, the level of detail or support called for in the rubric refers to those bulleted points.*

*Note: For definitions of terms commonly used in the rubric, see the Rubric Terms web link included in the Evaluation Procedures section.*

*Note: When using sources to support ideas and elements in a paper or project, the submission MUST include APA formatted in-text citations with a corresponding reference list for any direct quotes or paraphrasing. It is not necessary to list sources that were consulted if they have not been quoted or paraphrased in the text of the paper or project.*

*Note: No more than a combined total of 30% of a submission can be directly quoted or closely paraphrased from sources, even if cited correctly. For tips on using APA style, please refer to the APA Handout web link included in the APA Guidelines section.*

### Reference List:

*Note: This reference list refers only to direct citations in the task above and may be different from those you need to complete the task. Consult your Course of Study for a list of suggested learning resources.*

Campbell, N.A. & Reece, J.B. (2005). *Biology*, 7/e. San Francisco, CA: Benjamin Cummings.