# Purpose

In this assignment, you will analyze an example of speciation by researching the finches of the Galapagos Islands. Then you will answer questions to construct explanations and draw conclusions based on the information you gather.

Background Information

Biogeographical isolation may occur when populations are geographically separated, anatomically incompatible, behaviorally different, or temporarily isolated. Any of these mechanisms, or a combination of them, may lead to speciation if they result in reproductive isolation.

A classic example of speciation as a result of geographic isolation is the finches of the Galapagos Islands. Charles Darwin hypothesized, theorized, and drew conclusions about evolution based on his observations of these finches.

# Assignment Instructions

1. **Gather materials and necessary information.**
	1. Ask your teacher where you should save your assignment. You may also be able to print the document and complete it by hand before submitting it. Ask your teacher for guidance.
	2. If you have questions, ask your teacher for help.
2. **Complete the performance task.**
	1. **Respond carefully.** Follow the directions, and use your notes to help you complete the assignment.
	2. **Complete the assignment.** Be sure to read each question carefully. If you have any trouble understanding the requirements, ask your teacher for assistance.
3. **Evaluate your assignment using this checklist. When you can answer “yes” to all of the questions, you are ready to submit your assignment.**

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| --- | --- | --- |
| **Yes** | **No** | **Evaluation Question** |
|  |  | Did you answer all of the questions in the assignment? |
|  |  | Do your answers to the questions include supporting evidence from reliable resources? |
|  |  | Are your answers written carefully and spelled correctly? |

1. **Revise and submit your assignment.**
	1. If you were unable to answer “yes” to all of the questions on the checklist, revise your work before submitting it.
	2. Return to the virtual classroom and use the “Add Files” option to locate and submit your assignment. Ask your teacher for assistance if necessary. Congratulations! You have successfully completed your assignment.
	3. Ask your teacher for further instructions about whether you will be presenting your findings to an audience of your peers.

# Assignment

**Use reliable and reputable resources to conduct research on the Galapagos finches. Analyze the speciation of the Galapagos finches by answering the questions below.**

1. Where are the Galapagos Islands located? (5 points)
2. What trait variation did Charles Darwin observe after studying the Galapagos finches?
(5 points)
3. How did Darwin explain the differences in traits? (10 points)
4. According to Darwin’s *On the Origin of Species*, what four factors affect evolution? Explain how each factor affects evolution. (15 points)
5. Peter and Rosemary Grant began studying the Galapagos finches in 1973. For about 40 years, they studied the finches on Daphne Major. Why was this an ideal place to study the evolution of the finches? (10 points)
6. Which of the four factors that affect evolution apply to the finches that the Grants studied? Use evidence from your research to support your answer. (15 points)
7. If the area had experienced a wet season two years after the drought instead of a dry season, what kind of evolution would you expect? Explain your answer. (5 points)
8. Use evidence from the Grants’ research to explain how natural selection leads to evolution. (10 points)
9. List the sources you used for your research in the space below. If you used websites, include the title and URL of the website or article. If you used books or other print resources, note each source’s title, author, publisher, and date published. (10 points)