



# De La Salle University

## SENIOR HIGH SCHOOL

### FINAL PROJECT Earth and Life Science 1<sup>st</sup> Trimester, AY 2017-2018

#### Case Study: Natural Changes that can affect an Ecosystem

Harris, A. (2017) stated that wind, rain, predation and earthquakes are all examples of natural processes which impact an ecosystem. Humans also affect ecosystems by reducing habitat, over-hunting, broadcasting pesticides or fertilizers, and other influences. The line between natural and human caused effects often blurs. For example, sediment in streams and rivers can damage these tender ecosystems. But the cause may have been a post-storm mudslide or acreage stripped bare for farming. Anything that enters an ecosystem – from sunlight to rain to contaminants – has the potential to change it. <sup>1</sup>

Virtually all of Earth's ecosystems have been significantly transformed through human and natural actions. In the second half of the 20<sup>th</sup> century ecosystems changed more rapidly than at any other time in recorded human history. <sup>2</sup>

As a Lasallian student who is a critical and creative thinker, and lifelong learner, your task is to come up with a case study on how the natural changes can affect an ecosystem. The prescribed format with guide questions is found in the succeeding pages. Below is the list of possible topics that you can consider for your case study

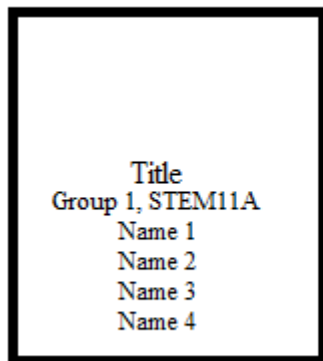
1. Animal Migration in response to change in season
2. Role of climate in animal behavior (to exclude migration)
  - 2.1 How climate change is affecting wildlife behavior
3. Soil Erosion and Farming/Crop Productivity
4. Siltation and its Impact on Aquatic Life
5. Plate Tectonics (Sea floor spreading) and Green Turtle breeding
6. Ocean Currents and Fish Productivity
  - \*Highly productive fishing grounds in the world are located in areas of upwellings.
7. Impact of Wind Direction and precipitation on Vegetation (Vegetation along Leeward and windward side of mountains)
8. Coastal Erosion and human settlements
9. Impacts of Dams on the Ecosystem/Environment or
  - 9.1 Effects of Dams on Biodiversity
  - 9.2 Dams and recreation
10. Soil, Climate, and Wine Productions
11. Red Tides: causes and impacts
  - 11.1 Role of rise in ocean temperature, El Nino, Upwelling's in red tides
  - 11.2 Impact of Red Tide on Human Health
12. Effects of volcanic eruptions on vegetation
13. Atmospheric Pollution and Health Problems
14. The petroleum industry and environmental pollution (e.g. Air pollution)
15. The healing power of crystals

**Outline:**

- I. Executive summary/Abstract (provide three keywords in the last part)
- II. Introduction
  - A. What is the background and characteristic of the natural change?
  - B. What are the problems that it contributes to the ecosystem?
- III. Discussion
  - A. History or timeline of what brought the change
  - B. Relationship of Two discipline
  - C. Possible impacts (or risks if applicable)
- IV. Conclusion
- V. References (use APA referencing, arranged alphabetically)
- VI. Appendix

**Format:**

**Title Page**



- Paper Size: Letter , 8.5" x 11"
- Manuscripts must be in American English
- Spacing:** double-spaced.
- Use one side of the page only. (Don't use the back portion of each page)
- Font size and Style:** 11 pt. Times New Roman/Arial, paragraphs are indented.
- Number all pages consecutively on the upper right corner of the paper.

**Deadline Schedules:**

Week Number	Date	Description of Activity	Deadline
2	June 12-16	Gathering of relevant information related to the assigned/chosen topic	Week 3: June 19-23
4	June 26-30	Project Making: Part II A	Week 5: July 3-7
6	July 10-14	Project making: Part II B	Week 7: July 17-21
8	July 24-28	Project making: Part III A	Week 9: July 31-August 4
10	August 7-11	Project Making: Part III B and C	Week 11: August 14-18
12	August 21-25	Project Making: Part IV	Week 13: August 28-September 1
13	August 28-September 1	<b>Submission of Final Output</b>	

**RUBRIC FOR EVALUATING Final Project (Case Study)**

<b>CRITERIA</b>	<b>EXEMPLARY 4</b>	<b>SATISFACTORY 3</b>	<b>DEVELOPING 2</b>	<b>BEGINNING 1</b>
Organization, 20%	Manuscript is well-organized and structured.	Manuscript is organized but lacks certain key elements.	Manuscript show organization but has several portions that are not relevant.	Manuscript is disorganized and the flow of information and arguments are confusing.
Scientific Accuracy, 40%	Scientific explanations or facts presented/cited are 100% accurate.	Scientific explanations or facts presented/cited show some inaccuracies.	Scientific explanations or facts presented/cited show a significant number of inaccuracies	Scientific explanations or facts presented or cited are all misconceptions
Presentation of Arguments or Explanations, 40%	Arguments and explanations presented are clear, valid, and convincing.	Arguments presented are clear, valid, and convincing but has several flaws.	The arguments and explanations presented only partially addressed the problem.	The arguments and explanations presented do not in any way address the problem.
			<b>OVER-ALL SCORE</b>	<b>100</b>

**References:**

1. Harris, A. (2017, June 7). Natural Changes That Can Affect an Ecosystem. Retrieved June 12, 2017, from <http://sciencing.com/natural-changes-can-affect-ecosystem-6777.html>
2. Reid, W. V. (2005, March 15). Ecosystem Change. Retrieved June 12, 2017, from <https://www.greenfacts.org/en/ecosystems/millennium-assessment-2/1-ecosystem-change.htm#1>