

# [Dependence of man on the environment essay sample](https://assignbuster.com/dependence-of-man-on-the-environment-essay-sample/)

Biomes and Diversity. As you have learned in the readings, extinction is a natural selection process. You have also read that humans are often responsible for accelerating this process. Using at least two scholarly sources, address whether or not we as humans should be concerned with the extinction rate. Additionally, discuss whether or not humans strive to preserve representative samples of all biomes on the planet

Introduction to Science. Read Lab 1: Introduction to Science. This lab includes several critical thinking activities introducing the scientific method, lab reporting, and data collection and management. Then, utilize this information to complete Exercise 1 and 2 on the Lab 1 Reporting Form, completing all tables as you proceed. Make sure that all of the following items are completed before submission: a. Read through the intro material and answer lab questions 1 through 8 on the Lab 1 Reporting Form for Exercise 1. b. Read all lab material and answer lab questions 1 through 4 on the Lab 1 Reporting Form for Exercise 2. Save your completed Lab 1 Reporting Form as a Word document.

The document must be formatted according to APA style, including a title page and references page. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course. Submit the document via the Assignment Basket in your online course.

Environmental Footprint. The purpose of this assignment is to learn more about how connected you are to the ecosystems and biosphere that you inhabit. You will learn how your everyday choices contribute to the human impacts on our environment you have been learning about. Most importantly, you will learn about benefits that you can receive by joining the increasing number of people who are making choices that reduce their environmental impact. First, calculate your ecological footprint.

a. Use the Footprint Calculator to measure your ecological footprint and learn “ how many earths” it takes to support your lifestyle. Be sure to choose the “ detailed response” option for each question. b. Answer each question in the quiz honestly and record your answers and results in the Environmental Footprint Reporting Form (available for download in your online course). Second, calculate your household carbon emissions.

a. Use the Household Carbon Footprint Calculator to measure your carbon emissions and determine your environmental impact and the benefits of solutions. § Section 1: Estimate your current total household emissions (from home energy use, vehicle use, waste). § Section 2: Explore actions you can take to reduce your greenhouse gas emissions, energy use, and waste disposal costs. § Section 3: See how much you can save (in dollars and emissions) by taking the actions you chose in Section 2. b. Answer each question in the quiz honestly and record your answers and results in the Environmental Footprint Reporting Form.

Complete Tables A and B as well as assignment questions 1 through 4 on the Environmental Footprint Reporting Form. Save your answers as a Word document. The document must be formatted according to APA style. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course. Submit the document via the Assignment Basket in your online course.

SCI 207 Week 2

Food and Agriculture. In the United States, we are fortunate to have an abundant supply of food, and much of this is due to our agricultural technology. However, there are many concerns about our food source, including genetically modified crops, the use of more chemicals, and climate change. Provide at least two modern examples of how the United States has increased its food production. Using at least two scholarly sources, discuss how these changes have affected the environment, and what impact they have on food safety?

Water Quality and Contamination. Read Lab 2: Water Quality and Contamination. This lab will allow you to investigate the effects of common pollutants on groundwater as well as mimic the filtration process utilized by wastewater treatment facilities. Additionally, you will perform tests on your own tap water to compare differences in contaminants found in bottled versus tap water. Then, utilize this information and your eScience lab kit to complete Experiments 1 through 3 on the Lab 2 Reporting Form. Make sure that all of the following items are completed before submission: a. Read through intro material and record your hypothesis for Experiment 1 on the Lab 2 Reporting Form. b. Perform “ Experiment 1: Effects of Groundwater Contamination” using your eScience lab manual and kit.

c. Answer post lab questions 1 through 5 on the Lab 2 Reporting Form. d. Record your hypothesis for Experiment 2 on the Lab 2 Reporting Form. e. Complete “ Experiment 2: Water Treatment” using your eScience lab manual and kit. Answer post lab questions 1 through 3 on the Lab 2 Reporting Form. f. Record your hypothesis for Experiment 3 on the Lab 2 Reporting Form. g. Complete “ Experiment 3: Drinking Water Quality” using your eScience lab manual and kit. Answer post lab questions 1 through 3 on the Lab 2 Reporting Form. h. Go to Lab 3: Biodiversity and complete “ Experiment 2: Diversity of Plants” steps 1 through 5. Steps 1through 5 need to be completed in order to be prepared for Week Three, however, results for this experiment will not be calculated until next week. Thus, nothing is to be handed in for this experiment until the end of Week Three.

Only the post lab questions for “ Lab 2: Water Quality and Contamination” should be completed on the Lab 2 Reporting Form. Save your completed Lab 2 Reporting Form as a Word document. The document must be formatted according to APA style, including a title page and references page. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course. Submit the document via the Assignment Basket in your online course. Carefully review the Grading Rubric (available for download in your online course) before beginning the lab and note the criteria that will be used to evaluate your assignment.

SCI 207 Week 3

Age of Oil. As you know, our world is heavily dependent on oil. In Chapter 6 of Contemporary Environmental Issues, you have read that there is concern about the possibility of reaching a peak in oil production. Describe at least two alternatives to oil that are currently available and discuss the barriers that keep these alternatives from replacing oil as our primary means of energy? Additionally, utilizing at least two scholarly sources, discuss the role that government plays in ensuring a transition to such alternatives in a post peak-oil world?

Biodiversity. Read Lab 3: Biodiversity. This lab will allow you to investigate how various organisms alter their environments. Additionally, it will allow you to assess the health of the ecosystem in which you live through the germination of various seed types. Then, utilize this information to complete Experiments 1 and 2 on the Lab 3 Reporting Form, completing all tables as you proceed. Make sure that all of the following items are completed before submission: a. Read through intro material and record your hypothesis for “ Experiment 1: Interdependence of Seeds” on the Lab 3 Reporting Form. b. Perform “ Experiment 1: Interdependence of Seeds” using your eScience lab manual and kit. Answer post lab questions 1 through 5 on the Lab 3 Reporting Form.

c. Record your hypothesis for “ Experiment 2: Diversity of Plants” on the Lab 3 Reporting Form. d. Complete “ Experiment 2: Diversity of Plants” using your eScience lab manual and kit. Answer post lab questions 1 through 5 on the Lab 3 Reporting Form. All post lab questions for “ Lab 3: Biodiversity” should be completed on the Lab 3 Reporting Form. Save your completed Lab 3 Reporting Form as a Word document. The document must be formatted according to APA style, including a title page and references page. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course. Submit the document via the Assignment Basket in your online course. Carefully review the Grading Rubric (available for download in your online course) before beginning the lab and note the criteria that will be used to evaluate your assignment.

Outline of the Final Lab Report. Review the Final Lab Report instructions in Week Five of the online course or in the “ Components of Course Evaluation” section of this guide as well as the Sample Final Lab Report (PDF can be found in your online course). I would also recommend you review Week Two’s Laboratory, “ Water Quality and Contamination,” before beginning this assignment. You are then to write a complete outline for your Final Lab Report. The outline must contain:

a. Title Page
Include the same information as the Final Lab Report (see instructions in Week Five of the online course or in the “ Components of Course Evaluation” section of this guide). b. Introduction
Provide an outline of your introduction including background, objective, and hypothesis, as well as all sources that will be used to back this information. c. Materials and Methods Provide an outline of steps used to conduct the experiments as well as all sources used to conduct the experiments. d. Results Provide an outline of results, including any tables and graphs that will appear in your Final Lab Report e. Discussion

Provide an outline of discussion, including meaning of findings, outside factors effecting results, and future experiments based on results. f. Conclusions
Provide an outline of the summary of all work.
g. References
Provide a list of references in APA format.

SCI 207 Week 4

Climate and Air Pollution. As increases in human population lead to expansive industrialization and cultivation, increased carbon emissions are resulting in global climate change. This atmospheric alteration may result in a number of detrimental environmental impacts including food insecurity, increased spread of disease, more intense storms, and sea level rise. As the United States is the largest contributor to atmospheric carbon emissions, what specific policies might the United States enact to reduce its impact on global climate change? Utilize at least two scholarly sources to discuss the economic impacts of any proposed policy.

Energy Sources and Alternative Energy. Read Lab 4: Energy Sources and Alternative Energy. This lab will allow you to investigate the effects of acid mine drainage through experimentation. Additionally, it will allow for the exploration of solar energy through the use of a solar cell motor. Then, utilize this information and your eScience lab kit to complete Experiments 1 and 2 on the Lab 4 Reporting Form, completing all tables as you proceed. Make sure that all of the following items are completed before submission: a. Read through intro material and record your hypothesis for “ Experiment 1: The Effects of Coal Mining” on the Lab 4 Reporting Form. b. Perform “ Experiment 1: The Effects of Coal Mining” using your eScience lab manual and kit. Answer post lab questions 1 through 5 on the Lab 4 Reporting Form.

c. Record your hypothesis for “ Experiment 2: Solar Energy” on the Lab 4 Reporting Form. d. Complete “ Experiment 2: Solar Energy” using your eScience lab manual and kit. Answer post lab questions 1 through 6 on the Lab 4 Reporting Form. All post lab questions for “ Lab 4: Energy Sources and Alternative Energy” should be completed on the Lab 4 Reporting Form. Save your completed Lab 4 Reporting Form as a Word document. The document must be formatted according to APA style, including a title page and references page. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course. Submit the document via the Assignment Basket in your online course. Carefully review the Grading Rubric (available for download in your online course) before beginning the lab and note the criteria that will be used to evaluate your assignment.

SCI 207 Week 5

Waste. In 2012, Americans alone produced over 250 million tons of garbage. One large component of this waste consisted of oil based plastic bags, which are utilized excessively by grocers, restaurants, and stores nationwide. In order to reduce this source of waste, many countries are banning plastic bags or taxing customers for their use. Utilizing at least two scholarly sources, discuss at least two environmental problems caused by such extensive plastic bag use? If you were in charge what plan might you propose to reduce or eliminate their use? Discuss the economic impacts of implementing your plan versus the financial impacts of making no change in our current use.

Weather and Climate Change. Read Lab 5: Weather and Climate Change. This lab will allow you to explore the water cycle through the creation of an ecosystem model. Additionally, you will observe how water moves throughout the environment and is affected by weather patterns. Then, utilize this information and your eScience lab kit to complete Experiments 1and 2 on the Lab 5 Reporting Form. Make sure that all of the following items are completed before submission: a. Read through intro material and record your hypothesis for “ Experiment 1: Modeling the Water Cycle” on the Lab 5 Reporting Form. b. Perform “ Experiment 1: Modeling the Water Cycle” using your eScience lab manual and kit. Answer post lab questions 1 through 4 on the Lab 5 Reporting Form.

c. Record your hypothesis for “ Experiment 2: Assessing Infiltration” on the Lab 5 Reporting Form. d. Complete “ Experiment 2: Assessing Infiltration” using your eScience lab manual and kit. Answer post lab questions 1 through 5 on the Lab 5 Reporting Form. All post lab questions for “ Lab 5: Weather and Climate Change” should be completed on the Lab 5 Reporting Form. Save your completed Lab 5 Reporting Form as a Word document. The document must be formatted according to APA style, including a title page and references page. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course. Submit the document via the Assignment Basket in your online course.

Focus of the Final Lab Report
Please read over the Sample Final Lab Report before beginning this assignment (PDF can be found in your online course). You are required to write a complete laboratory report for Lab 2: Water Quality and Contamination using knowledge gained throughout the course. The report must be 6 to10 pages in length and formatted according to APA style. You must use at least four scholarly sources (at least two of which can be found in the Ashford Online Library) in addition to the textbook and/or lab manual to support your points. Cite your sources in text and on the reference page. For information regarding APA samples and tutorials, visit the Ashford Writing Center, located within the Learning Resources tab on the left navigation toolbar, in your online course.

The Final Lab Report must contain the following eight sections in this order: 1. Title Page – This page must include the title of your report, your name, course name, instructor, and date submitted. 2. Abstract – This section should provide a brief summary of the methods, results, and conclusions. It should allow the reader to see what was done, how it was done, and the results. It should not exceed 200 words and should be the last part written (although it should still appear right after the title page). 3. Introduction – This section should include an overview of why the experiment was conducted. It should first contain background information of similar studies that have already been done in the area. This is accomplished by citing existing literature from similar experiments along with explaining their results. Secondly, it should provide an objective or a reason why the experiment is being done.

Why do we want to know the answer to the question we are asking? Finally, it should end with a hypothesis. You should pose a question and predict the answer to the question that will be investigated. This hypothesis should be made prior to your experiment and should not be adjusted to reflect the “ right” answer. Simply place your previous hypothesis in the report here. You do not lose points for an incorrect hypothesis; scientists are often wrong in their guesses. 4. Materials and Methods – This section should provide a detailed description of the materials used in your experiment and how they were used. A step-by-step run down of your experiment is necessary; however, it should be done in paragraph form, not in a list format.

The description should be exact enough to allow for someone reading the report to replicate the experiment. 5. Results – This section should include the data and observations from the experiment. All tables and graphs should be present in this section. There should be no personal opinions or discussion outside of the results located within this area. 6. Discussion – This section should interpret your data and provide conclusions. Discuss the meanings of your findings in this area. Was your hypothesis confirmed or denied, and how can you determine this? Did the results generate any future questions that might benefit from a new experiment? Were there any outside factors (i. e., temperature, contaminants, time of day) that affected your results? If so, how could you control for these in the future? 7. Conclusions – This section should simply provide a brief summary of your work. 8. References – List references used in APA format.