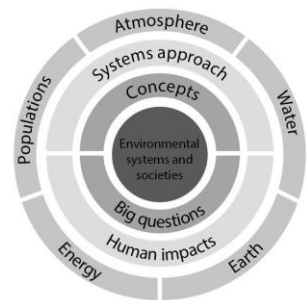


2021-2022 Summer Portfolio Project

The Internal Assessment (IA) for IB Environmental Systems and Societies is a 10-hour independent research project that is completely planned, developed, and carried out by each student. You pick the topic and develop a research question, design how you will investigate the research topic, collect and analyze the data, and report your findings.



Often the most difficult part of the IA is picking your topic and developing that into a research question. Your assignment this summer is to begin collecting articles and ideas for your IA for this school year. We will begin your IA in the fall and complete it early in the second semester. That means that you may be picking a topic or subject that we have not yet covered in class. Your IA must be related to the topics that we cover (according to the IBESS syllabus), but you can research something that we have yet to cover during our class time. (So if you want to study air pollutants, but we haven't gotten that far into the school year, that's still OK!)

Part A: Become familiar with the IB ESS Course and IA requirements.

- 1.) Read through the attached course outline to familiarize yourself with all of the topics that we will be covering over the course of these years. This is not the order of when we will cover the topics, but is listed in the order that they are presented in the IB-provided syllabus.
- 2.) Watch the eight short videos on the "Science Sauce" website that go over the various components and processes associated with the IBESS Internal Assessment. They are found at <https://ess.sciencesauceonline.com/the-ia/>.

Part B: Start collecting ideas for your IA

- 1.) Collect at least **TWO** articles for each main topic for Topics 2-8, following the guidelines below. Each article should cover a separate environmental issue or problem (articles should not overlap the specific issue or pr). That will give you a total of 14 entries! I also included the subtopics on the course outline for your information. *The material and content of Topic 1 is incorporated into the other 7 topics over the course of the year.*
 - Choose an article that addresses some environmental issue or problem that you could potentially study further as an Internal Assessment Project. It would be preferable if these were local stories, but they can be global or in another region of the world. Your IA project could be an actual hands-on experiment, a field study (such as the effects on biodiversity by some human action), an environmental values survey of people, or an analysis of another source of primary data. All of these types of projects are described in the *Science Sauce* videos you watched in Part A.
 - Each article needs to come from a reputable and appropriate news source – it can be from a newspaper (such as *New York Times Science Section*), science magazine (such as *National Geographic* or *Scientific American*), science journal or organization (such as *Science News* or *Nature* journal), or academic (university) publication (such as the American Association for the Advancement of Science).
 - The article should be a feature article (especially when from a newspaper or magazine) and be about at least a page long (approximately 8 to 10 paragraphs or more). A two or three paragraph article is not long enough to be appropriate for this project.
 - It should have been published within the last 12 months.
 - In a separate appendix, you need to include the full article in your project (copy and paste the article, or include captured or scanned images of the article if it is in print).
 - You need to give the proper MLA format for its citation, including a URL link if it is posted online.
 - List the title of your article and its source at the beginning of each entry.
 - You need to summarize the article in at least 2 to 3 paragraphs. You should use terminology appropriate for the academic level of our class! You should include the who, what, when, where, and why.
 - Using at least one paragraph, you need to explain how the article relates to the IBESS unit of study and our course. Describe the problem or issue that it addresses.
 - Include at least one paragraph of *how* you could develop an IA research project to study the problem or issue so that you can devise a solution to it. Remember that the goal of your IA project is to develop a solution to the issue and how we (meaning you, your classmates, or society in general) can reduce or solve the environmental problem. You need to include *how* you can study the issue, what materials you will need to

complete the project, what data you will need to collect, and how you will analyze that data. (If you can't do that for your article, then you should choose a different article!)

- 2.) The format of your portfolio is up to you, but you must include each of the requirements listed above in an easy to find and distinguishable format. I would highly recommend titles for each of the required paragraph section (For example: summary, connection to unit, IA potential). It will be submitted as a PDF file in Canvas after the school year has begun to preserve your formatting and layout.
- 3.) The portfolio is due by Friday of our first week back to school, submitted in Canvas. When it is submitted through the Canvas assignment, it will automatically be screened through Turnitin.com to check for plagiarism. Any portfolio that creates a significantly high plagiarism score will not be accepted. Each student is expected to complete this project independently and individually!

Course Topic Outline:

Additional information for each subtopic can be found on the Kognity online textbook for our course. You will be given access to that resource at the end of the school year, with log-in information sent directly to your GCS email address.

Topic 2: Ecosystems and ecology 2.1 Species and populations 2.2 Communities and ecosystems 2.3 Flows of energy and matter 2.4 Biomes, zonation and succession 2.5 Investigating ecosystems
Topic 3: Biodiversity and conservation 3.1 An introduction to biodiversity 3.2 Origins of biodiversity 3.3 Threats to biodiversity 3.4 Conservation of biodiversity
Topic 4: Water and aquatic food production systems and societies 4.1 Introduction to water systems 4.2 Access to fresh water 4.3 Aquatic food production systems 4.4 Water pollution
Topic 5: Soil systems and terrestrial food production systems and societies 5.1 Introduction to soil systems 5.2 Terrestrial food production systems and food choices 5.3 Soil degradation and conservation
Topic 6: Atmospheric systems and societies 6.1 Introduction to the atmosphere 6.2 Stratospheric ozone 6.3 Photochemical smog 6.4 Acid deposition
Topic 7: Climate change and energy production 7.1 Energy choices and security 7.2 Climate change—causes and impacts 7.3 Climate change—mitigation and adaptation
Topic 8: Human systems and resource use 8.1 Human population dynamics 8.2 Resource use in society 8.3 Solid domestic waste 8.4 Human population carrying capacity

Links for Possible Current Events Sources:

Local News:

Greensboro News and Record: <http://www.greensboro.com>
Raleigh News and Observer: <https://www.newsobserver.com/news/technology/>
Charlotte Observer: <https://www.charlotteobserver.com/>
NC National Public Radio – WUNC: <https://www.wunc.org/>
WGHP Fox 8 News: <https://myfox8.com/news/>
WFMY CBS News 2: <https://www.wfmynews2.com/news>
WXII NBC 12 News: <https://www.wxii12.com/local-news>

National and International Sources:

Science News - <https://www.sciencenews.org/>
Science News for Students - <https://www.sciencenewsforstudents.org/>
New York Times – Science Section - <https://www.nytimes.com/section/science>
Science Daily - <https://www.sciencedaily.com/>
US News and World Report – Science News - <https://www.usnews.com/science/news>
Reuters - <https://www.reuters.com/news/science>
Environmental News Network - <https://www.enn.com/>
BBC – Science and Environment News - https://www.bbc.com/news/science_and_environment
New Scientists (based in UK) - <https://www.newscientist.com/>
Scientific American - <https://www.scientificamerican.com/>
Popular Science - <https://www.popsoci.com/>
National Geographic - <https://www.nationalgeographic.com/>
Discover Magazine - <http://discovermagazine.com/>
National Public Radio (NPR) – Science - <https://www.npr.org/sections/science/>
Science Friday (weekly NPR program) - <https://www.sciencefriday.com/>
CNN – science - <https://www.cnn.com/specials/us/energy-and-environment>
NBC News Science - <https://www.nbcnews.com/science>
CBS News Science and Technology - <https://www.cbsnews.com/tech/>
FOX News Science - <https://www.foxnews.com/science>
(You can use other news agencies or sources, such as ABC News, but some don't have a dedicated science page that I could easily find)

For more Academic and Peer Reviewed Articles (you probably won't be able to access older stories unless you use the NCWiseOwl service at school):

American Association for the Advancement of Science - Science Journal -
<https://www.sciencemag.org/news/latest-news>
Nature Journal - <https://www.nature.com>
Frontiers - <https://www.frontiersin.org/>

Name: _____

Summer Project Grading Rubric

Unit	Appropriate article (1) <i>(length, date, source, full article included)</i>	Citation (1) <i>(MLA, URL listed)</i>	Summary (3) <i>(Title, 2-3 paragraphs, appropriate terminology, 5 Ws,)</i>	Connection to course (2) <i>(Unit(s) identified, issue identified)</i>	IA Potential (3) <i>(possible project, methods, data collection)</i>	TOTAL
Unit 2, #1						
Unit 2, #2						
Unit 3, #1						
Unit 3, #2						
Unit 4, #1						
Unit 4, #2						
Unit 5, #1						
Unit 5, #2						
Unit 6, #1						
Unit 6, #2						
Unit 7, #1						
Unit 7, #2						
Unit 8, #1						
Unit 8, #2						

Notes and Suggestions:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.