**MYP: One World Essay – Chemicals in our Food**

***Something to ponder while completing the assignment***: In today’s society the word “chemical” generally has a negative connotation, meaning that most people think of chemicals as inherently bad. While in many cases this is true, be aware that chemicals added to foods can also have many positive effects. Your job while completing the follow assignment is to be a ***critical consumer***! Conduct research to determine the impact of your chosen chemical as a food additive.

**Choose a Chemical (food additive): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chemical Formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Your essay should explain why that chemical is used in food products. What products is it used in? What problems does it intend to solve?
2. How effective is this chemical in solving the problem it is intended to solve? If the chemical does in fact solve the problem, does it have any possible unintended (negative or positive) side effects?
3. What are the implications (both positive and negative) of using this chemical? Make sure to **state the factor** and comment on a ***minimum of two*** of the following factors:
	* Moral - Personal view of what is right or wrong
	* Ethical - Society’s rules or code of conduct
	* Social - Related to people, groups
	* Economic - Related to profitability (the ability to make money)
	* Political - Relate to government
	* Cultural - Ideas, customs and behaviours of a society
	* Environmental - Human impact on the natural world

At home: Find the answers to the questions above – by researching online. Write a 500-word essay to explain what you learned. Make sure to refer to criteria below, as this is how you will be assessed.

The structure of the essay should follow the following format:

* 1. A short introductory paragraph that eases the reader into your topic. This paragraph should be general, explaining your topic and why it is important.
	2. One to three body paragraph(s) that expand and/or explain the topic introduced in the first paragraph. This is the “meat” of the essays, and therefore should reflect the majority of the 500 words.
	3. A conclusion or summary of the facts and findings. This is where you wrap everything up into a neat little bow!
	4. The essay should be double spaces, and typed in Times New Roman font.
	5. You must include a bibliography in APA format referencing all of the online sources you use. Please go to the Rockridge Library website for directions on siting sources

**Note:** In science, writing should be concise and to the point. While proper grammar and sentence structure is essential, your essay should focus on the facts while making direct connections to the major points you are trying to convey.

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| **Beginning (0)** | **Developing (1-2)** | **Accomplished (3-4)** | **Exemplary(5-6)** |
| **One World** |
| The student does not reach a standard described by any of the descriptors to the right. | The student **states** how *food additive* are applied and how they may be used to address a specific problem or issue in a local or global context.The student **states** the effectiveness of a*food additives* and its application in solving the problem or issue.The student does **not** describe the implications of the use and application of *food additives*. | The student **describes** how *food additives* are applied and how they may be used to address a specific problem or issue in a local or global context.The student **describes** the effectiveness of *a food additive* and its application in solving the problem or issue.The student **describes** the implications of the use and application of *food additive* interacting with at least **one** of the following factors: moral, ethical, social, economic, political, cultural and environmental. | The student **explains** how *food additives* are applied and how they may be used to address a specific problem or issue in a local or global context.The student **discusses** the effectiveness of *a food additive* and its application in solving the problem or issue.The student **discusses** and evaluates the implications of the use and application of *food additive* interacting with at least **two** of the following factors: moral, ethical, social, economic, political, cultural and environmental. |
| **Communication** |
| The student does not reach a standard described by any of the descriptors given to the right. | The student uses a **limited range** of scientific language **correctly**.The student communicates scientific information with **limited effectiveness**.When appropriate to the task, the student **makes little attempt** to document sources of information. | The student uses **some** scientific language correctly.The student communicates scientific information with **some effectiveness**.When appropriate to the task, the student **partially documents** sources of information. | The student uses **sufficient** scientific language correctly.The student communicates scientific information **effectively**.When appropriate to the task, the student **fully documents** sources of information **correctly**. |
| * Sufficient language: chemical name and formula, product names, problems, solutions, side effects and implications
* Effective communication: follows the essay structure outlined on the task sheet, concise and to the point
* Fully documents sources: includes the website name and URL for at least 3 sites
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