**Food Technology Honors Project**

The Food Technology course is an HONORS course. To achieve this distinction, students must complete this project. The Food Technology Honors student will:

1. Research a prepared recipe of his/her choice (ingredients, culture, history)
2. Examine the farm to fork continuum for this dish
3. Discuss specific food safety protocol for preparation and storage of this dish
4. Research the science behind the preparation of this recipe
5. Present their findings at a Food Science Friday Fair, employ a medium to present that utilizes 21st century technological skills (ex: Prezi, Powerpoint)
6. Create the dish using their preparation techniques they studied three different ways to show how science impacts this recipe, in addition to the traditional recipe
7. Create an advertisement for their presentation at the Food Science Friday Fair

**Research Paper Rubric**

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|  | 4 | 3 | 2 | 1 |
| Dish description | A full list of ingredients, a thorough description of the cultural background associated with this dish, a description of historical importance of the dish. | An almost complete list of ingredients, description of the cultural background associated with this dish, and a description of historical importance of the dish. | A somewhat satisfactory list of ingredients, description of the cultural background associated with this dish, and a description of historical importance of the dish. | A very limited list of ingredients, a small description of the cultural background associated with this dish, and a brief description of historical importance of the dish. |
| Farm to fork continuum | A full description of this dish and where the ingredients are from. A geographic map that shows where each of the ingredients is from in the world. In addition, a list of what items are fresh, frozen, canned, or processed in any manner. | An almost full description of this dish and where the ingredients are from. A geographic map that mostly shows where each of the ingredients is from in the world. In addition, a list of what items are fresh, frozen, canned, or processed in any manner. | A somewhat satisfactory description of this dish and where the ingredients are from. A geographic map that shows where each of the ingredients is from in the world has errors.  | A limited description of this dish and where the ingredients are from. A geographic map that shows where each of the ingredients is from in the world and/or a list of what items are fresh, frozen, canned, or processed in any manner. |
| Safety Protocol | A protocol for safety before, during, and after the production of the dish. A thorough description of how to store the dish. An analysis of what food borne illnesses could likely be associated with this dish. | A protocol for safety before, during, and after the production of the dish is almost complete. A good description of how to store the dish and analysis of what food borne illnesses could likely be associated with this dish. | A protocol for safety before, during, and after the production of the dish is limited. A description of how to store the dish. An analysis of what food borne illnesses could likely be associated with this dish. | A protocol for safety before, during, and after the production of the dish is weak. A poor description of how to store the dish and/or an analysis of what food borne illnesses could likely be associated with this dish. |
| Food Science | A methodical description of how food science impacts and makes this dish’s production possible. | A somewhat strong description of how food science impacts and makes this dish’s production possible. | A partial description of how food science impacts and makes this dish’s production possible. | A weak description of how food science impacts and makes this dish’s production possible. |
| Experimental Design | Exemplary experimental design: hypothesis, control and variable setup | Experimental design is at standard. | Experimental design needs some improvement. | Experimental design needs significant help. |
| Data | Detailed observations that are both qualitative and quantitative (sensory and measurements), and an exemplary graphical representation. | Data is at standard and includes some qualitative and quantitative measurements. A graphical representation is included. | Data is somewhat below standard and has some mistakes. The graphical representation is included but lacks value for the study. | The data and/or graphical representations of data have numerous errors and maybe of poor quality. |
| Conclusion and Recommendations | Vigorous thought and deductions are made from the food science exploration, recommendations for future experiments are thoughtful and detailed. | Conclusions demonstrate that the overall scientific principle was understood. The recommendations are included but may lack great thought. | The conclusion and recommendations are included but lack substantial input or show little understanding of the science behind the dish. | The conclusions and/or recommendations show little understanding of what was observed. The recommendations maybe poor. |
| Spelling and Grammar | Spelling and grammar are free of errors. | Spelling and grammar has fewer than five errors. | Spelling and grammar has between six and ten errors. | Spelling and grammar has more than ten errors. |
| Works Cited | A full works cited page is included in addition to the paper.There is citation throughout the paper without error. | A works cited page is included in addition to the paper.There is some citation throughout the paper without few errors. | A works cited page is included in addition to the paper.There is limited to no citation throughout the paper. | An attempt at a works cited page is included in addition to the paper and/orno citation throughout the paper. |
| Publication | 12 pt font, dbl spaced, at least three full pages, 1” margins. Submitted to Edmodo. | One of the items in publication is not followed. Submitted to Edmodo. | Two of the items in publication are not followed.Submitted to Edmodo. | Three or more of the items in publication are not followed. Submitted to Edmodo. |

**Presentation Rubric**

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|  | 4 | 3 | 2 | 1 |
| Eye contact | Holds attention of entire audience with the use of direct eye contact, seldom looking at notes. | Consistent use of eye contact but still uses notes. | Displayed minimal eye contact with the audience and relied heavily on notes. | No eye contact with the audience, as entire report is read from the notes. |
| Body Language | Movements seem fluid and helps the audience visualize. | Made movements or gestures that enhances articulation. | Very little movement or descriptive gestures. | No movement or descriptive gestures. |
| Poise | Student displays relaxed, self confident nature, with no mistakes. | Makes minor mistakes, but quickly recovers from them, displays little or no tension. | Displays mild tension, has trouble recovering from mistakes. | Tension and nervousness is obvious, has trouble recovering from mistakes. |
| Enthusiasm | Demonstrates a strong, positive feeling about topic during entire presentation. | Occasionally shows positive feelings about topic. | Shows some negativity toward topic presented. | Shows absolutely no interest in topic presented. |
| Verbal Skills | Students uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear. | Student’s voice is clear. Student pronounces most words correctly. Most audience members can hear. | Student’s voice is low. Student incorrectly pronounces terms. Audience has difficulty hearing presenter. | Student mumbles, incorrectly pronounces terms, and speaks too quietly for a majority of audience to hear. |
| Subject Knowledge | Student demonstrates full knowledge by answering all class questions with explanation. | Student is at ease with expected answers to all questions, without elaboration. | Students is uncomfortable with information and is able to answer only rudimentary questions. | Students does not have a grasp of information, student cannot answer questions about subject. |
| Organization | Student presents information in logical, interesting sequence which audience can follow. | Student presents information in logical sequence which audience can follow. | Audience has difficulty following presentation because student jumps around. | Audience cannot understand presentation because there is no sequence of information. |
| Mechanics and Technology | Presentation has no grammatical errors or misspellings. A clean and clear presentation medium is employed that appeals to audience. | Presentation has no more than two errors. The presentation background lacks creativity but has some audience appeal. | Presentation has three errors. The presentation lacks functionality and audience appeal. It is not carefully prepared. | Presentation has more than four errors. Has no functionality. Not prepared. |
| Advertisement | A very creative, professional product with audience appeal. Color and graphics are of the highest quality. Highlights correctly all information needed to attend the presentation. Submitted on Edmodo. | A product that is neat and functional with some audience appeal. Color and graphics are acceptable. Showcases almost all of the information needed to attend the presentation. Submitted on Edmodo. | A product that lacks appeal. Color may not be used and graphics are poor. Some critical information to attend the presentation is missing. Submitted on Edmodo. | An advertisement is posted, lacks color and graphics or critical information about the presentation date/time/topic/etc. Submitted on Edmodo. |

**Food Science Dish, prepared FOUR ways, *a control and three variables* (utilizing principles of food technology)**

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| --- | --- | --- | --- | --- |
|  | 4 | 3 | 2 | 1 |
| Dish preparation | Dishes are prepared accurately and best recipe is accurate. | Dishes are prepared mostly accurately and best recipe is correct. | Dishes are prepared somewhat accurately. | Dishes are attempted. |
| Food technology | 1 food science principle is explored and the dish has a control and is prepared with 3 variables (variations should be of the same principle- oil, sugar, leavening agent). | 1 food science principle is demonstrated using a control and at least two variables. | 1 food science principle is demonstrated using a control and at least one variable. | 1 food science principle and no unique food technologies are employed, only original recipe is produced. |
| Informational markers | All four of the dishes are labeled accurately and professionally to illustrate how they are unique. Each dish has a unique four digit code. Ballots are distributed to students for tally. | Dishes are labeled accurately and somewhat professionally to illustrate how they are unique. | Dishes are labeled and illustrate each variable of the food science. | Dishes are labeled with little care and don’t clearly display the food variable. |

**Paper and Presentation Timelines**

* Papers must be submitted by the Monday, October 17th. Turn in papers to Edmodo.
* Food Science Friday Fairs will be Friday, September 30th, October 7th, and October 14th. These will take place during class.
* An advertisement for your Food Science Friday Fair must be submitted on Edmodo.

**Extra Credit**

To receive 10% extra credit on the presentation, **create and** **send an Evite to Mrs. Riedel** and to the following:

1. Mr. Bazzell
2. Dr. Inscoe
3. Your counselor
4. Your administrator

Be sure all of the pertinent information is on your Evite.

**Resources**

* To help you navigate this project, there is a great website with experiments much like this one. <http://www.seriouseats.com/the-food-lab/?ref=nav_main>
* Use your inquiry approach template that we use for our labs. This will help you to layout your experiment. Remember- food science is fun. You get to eat your data!
* Check out all of their Food Labs. You could try something like cookies, eggs, soups… They have explored a number of different recipes and the science behind them. Check those out and then you can get an idea of what to do.
* Test the difference between baking powder and baking soda or how about different baking times or oven temperatures. The sky is the limit! Now, get to cooking and employ those food science skills!