**Name \_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_**

**Lesson Title: Genetically Modified Foods (Honors)**

Student objectives: Students will assess and evaluate the utilization of genetically modified organisms by the food industry.

Essential standards: 3.3.2 Summarize how transgenic organisms are engineered to benefit society.

**Check off each task as you complete it.**

\_\_\_\_\_ **Part One: Opener…..Complete this sentence…**

 **“My thoughts about GMO’s are……”**

**\_\_\_\_\_ Part Two: Read the article about a particular aspect of GMOs and gather facts.**

Title of Article \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Discuss the article read with the person sitting next to you. List statements from the article that would help answer the question: “Should GMOs be used?” Only list facts, rather than opinions.**

\_\_\_\_\_

 **List of Facts**

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**\_\_\_\_\_ Part 3: Define/ describe what GMOs are. Give examples.**

\_\_\_\_\_ **Part 4:** **Gathering more facts to form your opinion.**

Find, print, read and annotate at least five **unique** current event articles about the pros and cons of GMOs. Create a spreadsheet with facts from the articles that help you organize your thoughts with facts from the articles. Save the links for your Works Cited page.

 **ROUGH DRAFT BELOW….**

1. Article Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **List of Facts** **Pro or Con?**

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1. Article Name:­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **List of Facts** **Pro or Con?**

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1. Article Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **List of Facts** **Pro or Con?**

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1. Article Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **List of Facts** **Pro or Con?**

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1. Article Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **List of Facts** **Pro or Con?**

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\_\_\_\_\_ **Part Five:** Form your conclusion summary about GMOs from the data you have gathered.

\_\_\_\_\_ **Part Six:** Create a Works Cited Page in MLA format.

\_\_\_\_\_ **Part Seven:** Type all of the above steps. Put it in a report folder with the rubric included.

**Homework: Virtual Debate**

1. Students should post comment to a discussion board on the class weebly.  Each student should post an answer to the following: “With which viewpoint expressed in the videos and articles do you most closely relate?  Support your answer with a 2-3 sentence justification from an online news article or video that supports your opinion.” Send a link to the article or video to Mrs. Cowley to mcowley@wcpss.net.
2. Then, Survey **10** people using the following questions.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Agree | Disagree | Unsure |
| Have you heard of GM foods? |  |  |  |
| Are you or have you eaten GM foods? |  |  |  |
| Do you believe that GM foods are harmful to your health? |  |  |  |
| Do you believe GM foods are harmful to the environment? |  |  |  |
| Do you believe that there is an ethical issue regarding GM crops? |  |  |  |

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**GMO Honors Rubric**

1. Initial opinion about GMOs.
2. Define/ describe what GMOs are. Give examples.
3. Find at least 5 unique current articles about GMOs. **Print each one and annotate them.**
4. Create a spreadsheet of the pros and cons found in the five above articles.
5. Synthesize your conclusion opinion about GMOs.
6. Create a Works Cited page in MLA Format.

**Component** **Points possible**

Initial opinion \_\_\_\_\_2\_\_\_\_\_\_\_

Define/ Describe GMOs \_\_\_\_\_3\_\_\_\_\_\_\_

with examples \_\_\_\_\_5\_\_\_\_\_\_\_

 5 printed articles \_\_\_\_\_5\_\_\_\_\_\_\_

 Annotated \_\_\_\_\_5\_\_\_\_\_\_\_

 Spreadsheet of Pros/Cons \_\_\_\_\_10\_\_\_\_\_\_

 Conclusion summary \_\_\_\_\_10\_\_\_\_\_\_

 Works Cited Page \_\_\_\_\_ 5\_\_\_\_\_\_

 Typed \_\_\_\_\_\_5\_\_\_\_\_\_

 Total \_\_\_\_\_50\_\_\_\_\_\_

 Final Grade \_\_\_\_\_\_\_\_\_\_\_\_\_

**Assessment and Follow up activity….**

Students should combine the class data on a spreadsheet and as a class create a graph that shows the responses to the above questions.

Have students form groups of 3-4 students of those who have similar viewpoints.  Each group should make a 60 second Public Service Announcement video, Billboard poster or pamphlet with a catchy slogan, that shows your view on the Genetically Modified Organism debate.

Students should complete the “After our debate, my thought are . .part of the graphic organizer using complete sentences.

Finally, students should summarize how genetically modified organisms are used to benefit society in the final block of the graphic organizer.

