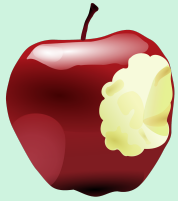


# Minnesota Apples: Sweet Fruit, Bitter Controversies



This Hyperdoc belongs to:

Hour:



Highlight boxes to change from **red** (not started) to **yellow** (in progress) to **green** (done)

1. Apple intro - organic taste test		7. Evaluate strength of evidence	
2. GMO intro - close reading, POV		8. Found & read online video	
3. Opposing views topic chosen		9. Evaluate support for a claim	
4. Opposing views articles chosen		10. Formed opinion from evidence	
5. First reading: POV, main ideas		11. Created annotated bibliography	
6. Found & read digital article		12. Did optional enrichment activity	

Print articles I selected from the class list

- 1.
- 2.

Digital article and video I found myself (and evaluated the site for Who/What/When!)

- 3.
- 4.

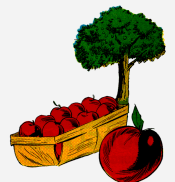
Activity #1: Launch Questions - type your answers

Do you like apples?

What's your favorite kind?

Do you buy organic or conventional? Both? Not sure?

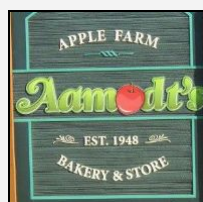
Did you know? Since 1888, the U of M has bred over 30 varieties of apples!



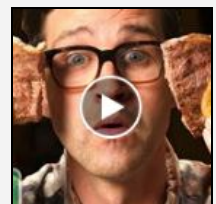
[Click here](#)  
to see the  
varieties!



[Click here](#)  
to watch the  
apple video:



[Click here](#) to  
watch the organic  
food taste test:





## organic Apple Taste Test - type your answers

- Sensory observations:
- What did you like/dislike about it?
- Did it taste different than a “conventional” apple?

### Activity #2: Learning about GMOs (Genetically Modified Organisms)

Apples are more complicated than we thought! First, we have to decide between organic or conventional varieties. Now we have to decide how we feel about GMO's!?

The future of food technology? [Click here](#) to watch the  
Risking Mother Nature's wrath? Arctic Apple time lapse:



Close read of [GMO Apple Article from Twin Cities Daily Planet](#)

Use a pencil & highlighter to help remember important information.

#### Things to note as you read:

- Who is the author?
- Is she an expert?
- When was the article published?
- What is the author's point of view?
- List three pieces of evidence you found:
  - 1.
  - 2.
  - 3.
- What additional questions did you think about that the article didn't answer?

#### Genetically-modified apples spur debate

By Rebecca Harrington (The Minnesota Daily) | July 26, 2012

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[Like 0](#)

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David Bedford, a University of Minnesota apple-breeding research scientist, samples a Mantet apple that is almost ripe for picking Monday at the Horticultural Research Center near Victoria, Minn. Bedford samples thousands of naturally bred apple varieties every season to determine their potential to be put on the consumer market. (Photo by Marisa Wojcik)

Genetically modified apples can't be found at a grocery store in the United States, but a Canadian company could change that.

## Essential skills we will work on in this lesson:



- Identifying key opposing viewpoints; defending & justifying a position
- Explain how & why governments regulate pesticides & agriculture
- Identify an author's point of view and cite supporting evidence
- Evaluate each side of an argument; if they fact vs. opinion
- Researching digital resources; using a website evaluation matrix
- Citing sources in a bibliography; paraphrasing vs. direct quotes

### Search Key Words:

Apples  
Conventional  
EPA  
GMO  
Non-GMO  
Orchard  
Organic  
Pesticides  
Regulation  
USDA



### Related Vocabulary:

**Blight** – the rapid and extensive discoloration, wilting and death of plant tissues  
**Carcinogen** – cancer causing agent  
**Certified Organic** – inspected by the USDA to ensure compliance to organic growing / harvest procedures  
**Food Labeling** – requirements for certain nutrients, chemicals and ingredients to be listed on packing materials  
**Hardy** – able to withstand the cold of winter in open air  
**Harvest** – the season when ripe crops are gathered  
**Hybrid** – a cross breed of two different kinds of plants, often by direct human interference in pollination  
**Insecticide** – a substance or preparation used to kill insects  
**Neonicotinoids** – insecticides that target the central nervous system of insects resulting in paralysis or death  
**Pest** – an insect or other small animal that harms or destroys garden or farm plants, trees or produce  
**Toxic** – acting or having the effect of poison

### Activity #3: Topic Selection - what are you most interested in?

Highlight your choice in **YELLOW**. *Not sure? Skim & scan some articles on Page 4.*

**Choice #1:** Organic versus Conventional - Do the benefits outweigh the added cost?

**Choice #2:** GMO versus non-GMO - Is genetically enhanced food worth the risks?

**Choice #3:** (Advanced) "Club Apples": Should apple tree varieties designed at the U of MN, paid for with MN tax dollars, be offered first to Minnesota farmers?

## Activity #4: Article Selection - Choose one article from each viewpoint

Highlight your choices in **YELLOW**. Then print a copy of each article to mark up.

### Choice #1: Organic versus Conventional Growing:

Article A: "Food & Pesticides" by the EPA - [click to preview](#)

Article B: "Five Reasons to Eat Organic Apples" by Forbes - [click to preview](#)

Article C: "Stinkbugs a Persistent Problem for Crops" by Newsela - [click to preview](#)

Article D: "Organic vs. Regular Apples" by Wake the Wolves - [click to preview](#)

Article E: "Why you shouldn't panic about pesticides" by NPR - [click to preview](#)

Article F: "Organic Foods are Healthier" by Adam Berger (1260L) - [click to preview](#)

Article G: "Organic Food is Unnecessary" by Nancy Sprague (1310L) - [click here](#)

### Choice #2: GMO vs. Non-GMO

Article H: "Say NO to GMO Apples" by Friends of the Earth - [click to preview](#)

Article I: "GMOs and engineered food" by Newsela - [click to preview](#)

Article J: "Pro/Con Putting GMO Info on food labels" by Newsela - [click to preview](#)

Article K: "GMO foods - an overview" by Alex Rich (1390L) - [click to preview](#)

Article L: "GMO foods are unsafe" by Tim Anderson (1330L) - [click to preview](#)

Article M: "GMO foods should be regulated" by Sally Driscoll (1260L) - [click here](#)

Article N: "GMO will improve global agriculture" by Jeff Bowman (1250L) - [click here](#)

Article O: "The many benefits of GMO food" by John Pearson (1480L) - [click here](#)

### Choice #3: "Club Apples" - Unfair Monopoly or Industry Norm?

NOTE: This is a complex legal issue, not discussed in class. It is marked **Advanced**

Article P: "SweeTango at the center of controversy" by Pioneer Press - [click here](#)

Article Q: "SweeTango invites fans" by Marketwired - [click to preview](#)

Article R: "Litigants settle SweeTango dispute" by Matt Milkovich - [click to preview](#)

Article S: "Want to grow these apples? You have to join the club" by NPR - [click here](#)

Article T: "SweeTango: About our growers" by NextBigThing Coop - [click to preview](#)

Article U: "MN wants a monopoly on Honeycrisp" by Emily Kaiser - [click to preview](#)

Article V: "Sweetango agreement riles some apple growers" by MPR - [click here](#)

Print, read and mark up your paper articles

Use a pencil & highlighter to help remember important information.

**Article 1 Title:**

- Who is the author?
- Is s/he an expert?
- When was the article published?
- What is the author's viewpoint?
  
- List three pieces of evidence you found:
  - 1.
  - 2.
  - 3.
- What additional questions did you think about that the article didn't answer?
  - 1.
  - 2.

**Article 2 Title:**

- Who is the author?
- Is s/he an expert?
- When was the article published?
- What is the author's viewpoint?
  
- List three pieces of evidence you found:
  - 1.
  - 2.
  - 3.
- What additional questions did you think about that the article didn't answer?
  - 1.
  - 2.

## Activity #6: Using a Keyword Search to find digital resources

Start at <http://www.elm4you.org/databases/topics/middleschool>

- Try one or two keywords or vocabulary words from Page 3 in this document
- Britannica Middle School and Student Resources in Context have electronic citation generators!
- Many of the ELM databases also have video resources if you scroll far enough

If you can't find anything in the ELM databases, "Google with care"!

- Use the same keywords you tried before, or get help refining your search
- Skip past links that look like ads; look for "professional" websites/URL's
- Always evaluate the website for "Who/What/When"
  - Who wrote it? Is s/he an expert? Can you contact him/her?
  - What information in the article is helpful? Can I read it for understanding?
  - When was it published? Is this current information? Do the links work?

## Activity #7: Evaluate Strength of Evidence

Using your new digital article,  
complete the paper copy of this form →

Type the article name here:

Article URL:

Article author:

Professional/publication organization:

Expand Learning with Clear Thinking	
<b>Evaluate the Strength of Evidence</b>	
1. What is the main idea of the first paragraph?	
<hr/>	
List two facts that support it most strongly. Paraphrase them in your own words.	
<hr/>	
<hr/>	
2. Outline the passage—list the parts that the writer included. You may find them identified with boldface sub-headings. You may have to figure out what those are without that help.	
<hr/>	
<hr/>	
3. What is a claim that the writer makes about the topic?	
<hr/>	
<hr/>	
4. What is the strongest evidence the writer gives to support that claim? List two examples or facts that the writer includes that support the claim most strongly. Paraphrase them—write them in your own words.	



## Activity #8: Using a Keyword Search to find digital videos

Start at <http://www.elm4you.org/databases/topics/middleschool>

- Try one or two keywords or vocabulary words from Page 3 in this document
- Look for filters for video content or embedded videos *in* articles on your topic

If you can't find anything in the ELM databases, "Google with care"!

- Use the same keywords you tried before, or get help refining your search
- Go to the "videos" tab or repeat your search starting at YouTube
- Always evaluate the video for "Who/What/When"
  - Who created it? Is s/he an expert? Does s/he have a website?
  - What information in the video is helpful? Was it short and concise?
  - When was it published? Is this current information? Do links work?

## Activity #9: Evaluate Support for a claim

Using your new video resource,  
complete the paper copy of this form →

Type the video name here:

Video URL:

Video creator:

Professional organization or website:

Expand Core Competence									
<b>Evaluate the Strength of Evidence that Supports a Claim</b> CCSSR8 Analyze the sufficiency of evidence to support a claim.									
Read a nonfiction text.									
Text: _____									
What is a claim the writer makes? _____ _____									
List three examples of evidence the writer uses to support the claim.									
	<table border="1"><thead><tr><th></th><th>Evidence</th></tr></thead><tbody><tr><td>1</td><td></td></tr><tr><td>2</td><td></td></tr><tr><td>3</td><td></td></tr></tbody></table>		Evidence	1		2		3	
	Evidence								
1									
2									
3									
<b>Then decide which evidence is strongest.</b> Here are ways a writer helps the reader see how strong the evidence is: <ul style="list-style-type: none"><li>■ The writer clearly states the evidence and explains how it supports the claim.</li><li>■ The writer includes specific information in the evidence.</li><li>■ The writer may strengthen the evidence by quoting an expert or a person who is directly involved in the situation.</li></ul>									
Which evidence is strongest? __1__ __2__ __3__									
Why do you think it is the strongest? _____ _____ _____									

Got extra time? Share and compare your resources & evaluations with a partner.

## Activity #10: Putting it all together

Using all your resource notes and evaluations, use this final form to compile the most important information. After it is complete, staple all your notes behind it.

You should now be able to answer:

- What are the opposing views
- Who is on each “side”?
- What is their evidence?
- How does the government intervene to regulate the issue?
- How do I feel about the issue?
- What evidence convinced me?

And most importantly:

- What Minnesota apple do I want to try next?!? :)



**Think Clearly: Analyze Support a Position**  
CCSSR8—analyze arguments; CCSSR1: Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

Issue: \_\_\_\_\_

One Position	Another Position
Supporting Reasons and Facts:	Supporting Reasons and Facts:

Which position is stronger? Explain your decision.

## Activity #11: Create an annotated bibliography - RIGHT HERE!

If you have been taking good notes, this should be easy! An annotated bibliography is simply a topic summary paragraph, followed by a collection of source citations. In between each citation is a sentence or two describing how that source supports your summary paragraph. (Hint: [the TC Daily Planet article is already done for you](#))

1. Go to the “Add-Ons” menu at the top of the page.
2. Start up the “Easy Bib Bibliography Creator” program (or install it first!).
3. Click “Manage Bibliography”.
4. Select “Website”.
5. Paste in the Website URL of one of your resources. Click “Search”
6. When you find the right one, click “Add Bibliography to Doc”

**Reminder:** you should be adding FOUR citations & annotations to the Works Cited!



## Annotated Bibliography Summary Paragraph (Type your summary below)

### Works Cited

Rebecca Harrington, (The Minnesota Daily). "Genetically-modified Apples Spur Debate." *Twin Cities Daily Planet*. 02 Aug. 2012. Web. 31 July 2017.

This website outlines many reasons why apple growers and consumers are wary about trying genetically modified apples. Traditional apple breeding takes many years to enhance features. Genetic modifications can take months or years. It is such a new technology, there is little safety research. This scares people.