**The relationship between agriculture and lifestyle**

Pillar 4 C. Discover the path a processed product takes from farm to table

(Grades 4th - 8th)

|  |
| --- |
| **Introduction**: Introduce the difference between processed food and fresh food  **Website**: <http://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=70&grade=3,6,9&author_state=0&lesson_states=TN> |

Activity: Where Does Your Food Come From?: An Augmented Reality Lesson

Digital Activity: <https://www.brainpop.com/games/foodchaingame/>

**Where Does Your Food Come From? An Augmented Reality Lesson**

**Purpose**

Students will create an augmented reality video using a smart phone application (app) to educate consumers about where their food comes from.

Materials

* A variety of items from a grocery store, you may use these suggested items or select your own: Syrup, tomato juice, chicken noodle soup, cheese, bread, pasta, eggs, milk
* Smart phone, iPad, or other tablet, for each group of students
* Picture of a Holstein cow
* Picture of a chicken
* Kernels of corn and/or a dried ear of Dent corn, optional
* Grains of wheat and/or stalk of wheat (available at some craft stores), optional
* Augmented Reality App (i.e. Aurasma), pre-loaded on classroom Tablets or iPads

**Essential Files** (maps, charts, pictures, or documents)

* [Getting Started with Augmented Reality](http://naitc-api.usu.edu/media/uploads/2014/11/13/Getting_Started_with_Augmented_Reality_1.pdf" \t "_blank)
* [How to Make an Aurasma Video Tutorial](http://naitc-api.usu.edu/media/uploads/2014/11/13/HowtoMakeanAurasmaAugmentedRealityVideo_1.pdf" \t "_blank)

**Vocabulary**

**Augmented reality:** a live direct or indirect view of a physical real-world environment whose elements are augmented by computer-generated sensory input such as sound video graphics or GPS data

**Aura:** term for the augmented reality experience

**Overlay:** content you link to the trigger image – usually a video

**Trigger:** still pictures a user has to scan with their phone to unlock the augmented reality content associated with them

**Did you know? (Ag Facts)**

* Dairy cows are milked up to three times each day and can produce as much as 9 gallons of milk a day.
* Female chickens or hens can produce about one egg every 24 hours.
* A special type of wheat called durum wheat is used to make pasta.
* Sales of natural, organic food and beverages have increased 20% from 2009 to 2012.
* More than half (56%) of the food and beverage product categories in the U.S. showed decreases in the average number of ingredients per product in the same period.
* Half of consumers get more cooking ideas online than anywhere else.
* Two-thirds of consumers spend more than 10 hours a week online and 63% of consumers surf the Internet on their smartphones.
* Only 34 percent of Americans feel agricultural industries are transparent and only 30 percent feel food companies specifically are transparent about food production practices.

**Background Agricultural Connections**

Augmented reality is a live direct or indirect view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as sound, video, graphics or GPS data. Augmented reality overlays virtual information atop a real-world object.

**Interest Approach – Engagement**

Your local grocery store conducted a survey of their customers and found that customers want to know where their food comes from. The store has hired your team to create an augmented reality video that will be triggered by an image at the grocery store and tell the story of where that food product came from.

**Procedures**

1. Provide the core concepts and set context of the "why" of the assignment using the background information.
2. Discuss the production and processing of the suggested store products and have examples of each to show students.
3. Teach basic use of the Aurasma app. NOTE: Teachers should have pre-loaded the app on classroom iPads or allow students to use their own devices.
4. Break class into teams of two. Have each team select a grocery store product. Ask each team to come up with a brief explanation/example of their grocery store item and the process needed to grow and turn the raw agriculture product into the final product and that helped put it on the store shelf.
5. One partner will shoot a short video of the other partner explaining the grocery store item. Videos should not be more than 1 to 2 minutes long. Take a picture of the item or use a picture of the item. (Note: If the picture is a close-up of the product name or logo the aura will work scanning the picture or the physical object.)
6. Select the video they took from their camera roll to be applied as the overlay.
7. When each partnership is finished, tape the picture of their item on the walls around the room or display the physical objects around the room indicating the trigger images.
8. Allow students to take a walking tour of the room and using an iPad or smart phone hover the device above the trigger pictures. The student-created-video overlay will begin automatically and students will learn about the different products and their journey from farm to table.

**Essential Links**

* [Aurasma Application for Android](https://play.google.com/store/apps/developer?id=Aurasma&hl=en" \t "_blank)
* [Aurasma Application](https://itunes.apple.com/us/app/aurasma/id432526396?mt=8" \t "_blank)

**Enriching Activities**

* Use image software to have students edit the trigger images to make them more professional looking.
* Use screen flow software and allow students to edit their videos, splice different pieces together and make a more professional looking video. This would likely take more time and would be suggested as a homework assignment.
* Have students present their video to the class and have the class go through the learning activity at the grocery store or in class using their smartphones to read the trigger images and access the subsequent augmented reality.
* Once you teach the process students can use it to create other augmented videos for future lessons independently. Keep a board posted in the room to display the trigger images
* Set up a class channel on Aurasma to keep Auras organized and saved.

**Suggested Companion Resources**

* [Mapping Meals Activity](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=88) (Activity)
* [Century Farm](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=99) (Book)
* [Harvest Year](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=98) (Book)
* [40 Maps that Explain Food in America](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=536) (Poster, Map, Infographic)
* [Quiz: Can you name a food by looking at where it comes from?](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=550)
* [Modern Marvels: Supermarkets](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=525) (Multimedia)
* [Dairy Reader](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=25) (Booklets & Readers)
* [Food Dialogues](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=523) (Website)