

Consume with a Conscience



How do we, as global consumers, impact the environment?

We often see Rainforest Alliance Certified labels on various agricultural goods worldwide: coffee, chocolate, bananas and more. This certification is designed to generate ecological, social, and economic benefits. Learn more about sustainable management practices and what certification means. As global consumers, how do we impact the environment and communities around the world?





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LESSON PLAN OVERVIEW	
Estimated Time: 1-2 days, depending on structure and length of class	Grade Level: Middle school students, 7 th – 8 th grades
Materials: Discussion Space, Pen/Pencil, Paper, Internet access	
Standards GNG's work is directly linked to preparing students for college and career readiness through the Common Core standards . While our work is centered on Common Core standards, we also meet National Standards for Civics & Government and Technology . <i>Please refer to the GNG website (www.gng.org) for specific standards.</i>	
Lesson Overview As a best practice, teachers should integrate the full lesson plan. This lesson plan is divided into three best practice steps. Educators should approach the lesson using all steps collectively as each step is built cumulatively upon the other. <ol style="list-style-type: none"> Step #1 students will LEARN as they <i>acquire background knowledge</i> about the journey food takes to get to their plate and understand various food certification programs including Rainforest Alliance certification. Step #2 students will ACT as they <i>participate</i> in a class project and <i>prepare</i> for the Interactive Videoconference (IVC). Step #3 students will REFLECT and connect on how this topic personally impacts them and the world around them, including accessing <i>additional resources</i> to further learn about the topic. 	
Learning Objectives & Outcomes <i>Program Goal: To provide students with insight into the ecological, social and economic impacts from purchasing and consuming food.</i>	
LEARNING OBJECTIVES <ul style="list-style-type: none"> Explore the human and environmental resources involved in food processing. Identify Rainforest Certification standards and understand how they ensure ecological, social and economic benefits. Apply the information to make sustainable food choices. Investigate and analyze additional solutions. 	LEARNING OUTCOMES <ul style="list-style-type: none"> Illustrate the food supply chain from production to consumption. Understand the many environmental and human resources that go into creating a favorite meal. Learn how to work as a team member to solve a social problem. Demonstrate a knowledge by creating solutions to a complex issue.

Activity Overview

“How do our food consumption habits impact the environment?”

Food takes a complex journey from its origins on farm fields, ranches, rivers, oceans and other sources to consumers’ plates. Along the way, it passes through the hands of producers (including farmers, ranchers and fishermen), processors, transporters, warehouse operators, retailers, consumers and waste handlers. The steps in this process also rely on natural resources like soil, freshwater and healthy pollinators. The study of the food system encompasses all of these interrelated parts. Looking at the food system in this way shows the connections between food, health, society and the environment.¹ An understanding of how these connected parts are related, and how changing one part might affect the others, is essential to understanding how you, as a consumer, can impact environmental, economic and social sustainability.

The following guiding questions can further support student learning and reflection:

- Consider where different foods originate? What country or region is the source for some of your favorite food?
 - What activities are involved in the food supply system?
 - Who are the people directly and indirectly involved in these activities?
 - How do you think food affects people, and is affected by the environment?
 - How do you think food affects the environment, and is affected by the environment?
- What is my role in the food system? How do I affect, and how am I affected by, the food system? How do I affect farmers and their communities? How do I affect the environment from my food choices?

Program Activities			
	Activity	Page(s)	Estimated Time
LEARN	Food Systems and Sustainability	5-6	60 minutes
	Rainforest Alliance Certification: Bananas Example	7-8	30 minutes
	IVC #1	9	30 minutes preparation 60 minute IVC + 30 min. dial-in
ACT	Plan to Consume with a Conscience	10	60 minutes
	IVC #2	11	30 minutes preparation 60 minute IVC + 30 min. dial-in
REFLECT	Reflect and Connect: Debrief & Take Action	12-13	15 minutes

¹ Adapted from: “Ingredients of the Food System: Background Reading,” *Johns Hopkins University*, 2010, http://www.jhsph.edu/research/centers-and-institutes/teaching-the-food-system/curriculum/_pdf/Ingredients_of_the_Food_System-Background.pdf

LEARN

Food Systems and Sustainability

TIME

60 minutes or more

MATERIALS

Pencil/pen, paper

OVERVIEW

Students learn about the food supply system to understand where their food comes from. They identify favorite foods and track it from the plants, animals, and people that helped produce the foods to their table. Students critically analyze their consumption impacts by understanding the people and environment impacted and involved in food supply system.

INSTRUCTIONS

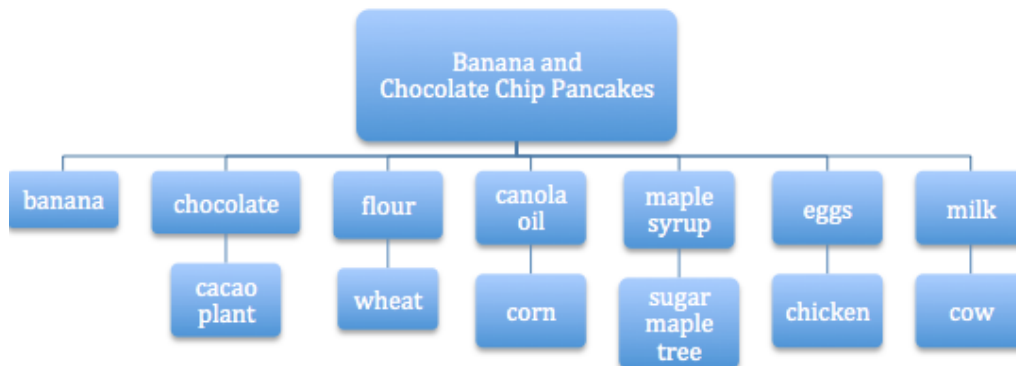
1. **Watch the video**, “The Man Behind Your Chocolate,” from the Rainforest Alliance website <http://www.rainforest-alliance.org/work/agriculture/cocoa>.

2. **Break students into groups of 3-4.**

Within each group, students should agree upon a meal that they enjoy (i.e., chocolate and banana pancakes). They should write this meal in the center of a blank piece of paper titled “What Makes My Meal?” (See example, below).

3. **Ingredients²**

Students work together to trace their meal back to the most basic parts or ingredients (usually a plant or animal). For example, chocolate and banana pancakes should be traced to include: milk, flour [this can be further broken down], banana, etc. List each ingredient as a branch off the main meal, with a line connecting it to the product. Students should use as many lines as necessary to connect the meal to the ingredients. (See example, below).



4. **Human Resources**

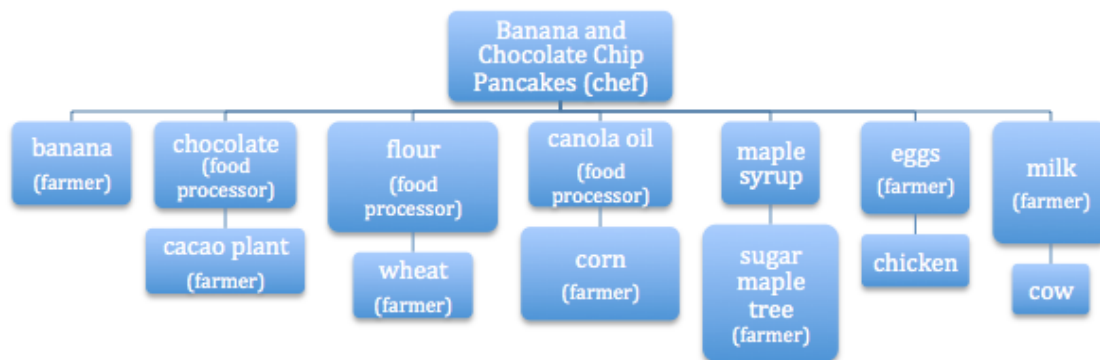
Now students go a step further in learning about the food supply system by learning about the people that are involved in producing their meal at various stages. Students identify and record the people involved in the production and processing of each ingredient in a parenthesis under the ingredient in the “What Makes My Meal?” chart. (See example, below)

Explain to students that there are multiple stages in the food supply system and human

² Adapted from: “Ingredients of the Food System: Lesson Plan,” Johns Hopkins University, 2010, http://www.jhsph.edu/research/centers-and-institutes/teaching-the-food-system/curriculum/ingredients_of_the_food_system.html

resources (people) are oftentimes related to those steps.

- Production - the growing of crops or raising of animals (ex: farmer, rancher, fisherman)
- Processing - the transformation of foods from raw ingredients into products for consumers (ex: baker, butcher, chef)
- Distribution - the transporting and storing of food and ingredients (ex: truck driver, warehouse stocker, warehouse receiver)
- Retail - the selling of food (ex: restaurant server, cashier, warehouse manager, warehouse secretary)



5. Reflect: Bring the groups together to have a classroom discussion in the following:

- What surprised you about the amount of ingredients used in the production of your meal?
- What surprised you about the amount of people involved in the production of your meal?
- How does the food we eat impact our health?
- How much does a banana and chocolate chip pancake cost to make at home or at your favorite place for breakfast? How might the cost of production get covered?

Rainforest Alliance Certification: Bananas Example³

TIME

MATERIALS

³Adapted from <http://www.rainforest-alliance.org/curriculum/seventh>

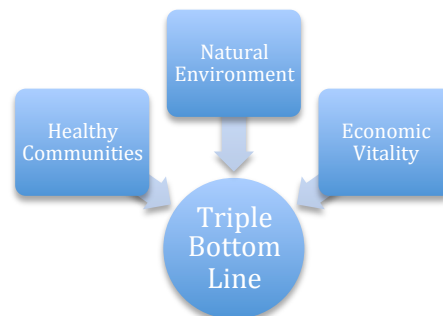
60 minutes or more	Pencil/pen, paper
OVERVIEW Students extend their understanding of the impact of their consumption by exploring the Rainforest Alliance's certification process, using bananas as one of many examples. Students learn the history of banana farming through a reading that includes an overview and the standards associated with certification.	
INSTRUCTIONS <ol style="list-style-type: none"> Ask students whether they've ever gotten a certificate for taking a class, completing a program or doing a good job, and ask them to describe what it means to certify something. List some of their ideas on the board. Explore the concept of certification more deeply by asking students what qualities and qualifications they would different people to have, for example, a lifeguard. Explain that in this case, certification ensures that a lifeguard meets the necessary qualifications. Discuss: <ul style="list-style-type: none"> Why do you think certification is important to all the parties involved (in this case, the lifeguard, swimmers, parents and the people who manage the pool or beach)? Why might it be significant that a third party does the certification (in this case, rather than lifeguards certifying themselves)? Bring the discussion to bananas by asking: <ul style="list-style-type: none"> Does it matter to you where your bananas come from? Have you ever been to a grocery store and seen bananas that were labeled as "certified?" What might that mean? How do you know? Why might it be important to certify bananas? To understand the context of banana certification, provide the following overview: <p><i>With a market of nearly five billion dollars a year, the banana is the world's most popular fruit and the most important food crop after rice, wheat, and maize. Banana businesses are economic pillars in many tropical countries, providing millions of jobs for rural residents.</i></p> <p><i>But, for much of its history, the banana industry was notorious for destructive farming practices. As companies tried to keep production high and costs low, they tended to grow only one crop in a plantation, which made the plants more susceptible to disease. To combat this, they would apply large amounts of pesticides, which would leak into the water table, pollute irrigation canals and drinking water supplies, and put workers in danger.</i></p> <p><i>In 1991 the Rainforest Alliance, along with partner groups and other stakeholders, established the first standards for responsible banana production. Today, more than 15 percent of all the bananas in international trade come from Rainforest Alliance Certified farms.</i></p> <p><i>These farms must demonstrate adherence to a rigorous set of standards that conserve ecosystems, increase water quality, promote sound waste management,</i></p> 	

reduce agrochemical use, and improve quality of life for farm workers and their families. The environment and the communities surrounding certified banana plantations benefit from both on-farm improvements and off-farm recognition, setting the pace for the rest of the banana sector.

In Honduras, for example, the Rainforest Alliance is working both with large and small businesses to achieve banana certification, ensuring that the rainforests are conserved and that the land and people are treated well. Honduras has a very diverse ecology, but is also facing an expanding urban population and an economy based primarily on agriculture -- with bananas as one of the main crops. Practicing sustainable agriculture is vital here.

- **Watch the video:** Small Actions = Big Changes from the Rainforest Alliance website to learn more about certification. <http://www.rainforest-alliance.org/multimedia/new-small-actions-big-changes>

5. **Have partners or small groups create a list of criteria** they would include if they were charged with the task of certifying bananas. Ask them to not only consider the healthiness of the bananas for consumers, but also the health of the land on which the bananas are grown, the health of the plants and animals in the nearby rainforest, and the wages and well-being of the farm workers. Ask them to share elements from their list with the class.



6. **Students read aloud the nine standards for banana certification** from the [“Bananas Standards for Rainforest Alliance Certification”](#) (p 9). Ask students to compare the Rainforest Alliance certification criteria to the ones they developed. Are there any criteria students didn't include in their lists? Are there any they would add?
7. Lead students in a discussion using the following guiding questions related to certification:
 - How does banana certification help the tropical rainforests?
 - How does it help the people who live in those areas?
 - How does it help consumers?
 - How does the food we eat impact our environment?



IVC #1 Preparation and Outline	
TIME IVC Outline Preparation: 30 minutes (before IVC) IVC #1: 60 min. + 30 min. dial-in = 90 minutes TOTAL	MATERIALS Paper, pen/pencil, notebook, agenda
OVERVIEW The outline below will be used as a guide for discussion during the first IVC. Have students review and complete this outline prior to IVC #1.	
INTERACTIVE VIDEOCONFERENCE #1: GUEST SPEAKER DISCUSSION	
Day <i>Tuesday</i>	
Date <i>February 11, 2014</i>	
Tech Dial-in Time	____:____ (Hour: Minute AM / PM)
Conference Start Time	____:____ (Hour: Minute AM / PM)

Interactive Videoconference Outline:

I. Introduction and Greetings (10 minutes)

GNG facilitator welcomes all participating students to Consume with a Conscience, IVC 1. One representative from each school shares:

- Number of students participating in today's IVC:
- Your school location
- Why environmental awareness and consumption are important issues to address in your community:

II. LEARN: Guest Speaker (45 minutes)

GNG facilitator will introduce our guest speaker, [Josh Tosteson](#), Vice President, Programs, Planning and Assessment at the [Rainforest Alliance](#), and provide a brief overview of his experience.

Drawing from the information students have learned about the role they can have in purchasing and consuming socially and environmentally food, students record three thoughtful and reflective questions for our Mr. Tosteson. GNG facilitator will guide a discussion between the guest speaker and the students.

Guiding Questions:

- What motivated you to get involved in sustainability issues?
- What does the Rainforest Alliance do to support environmental, social and economic sustainability?
- How can we make positive choices to improve our environment?

III. Conclusion (5 minutes)

GNG facilitator thanks all students and teachers for participating and reminds participants to post their Plan to Consume with a Conscience on the Pulse+ platform and prepare to showcase their campaign in the next videoconference.



ACT

Plan to Consume with a Conscience	
TIME 60 minutes in-class planning <i>30 minutes additional preparation (outside of class if needed)</i>	MATERIALS Internet
OVERVIEW Students use the knowledge gained from previous activities, to plan an environmentally and socially conscious meal for their family.	
INSTRUCTIONS <ol style="list-style-type: none"> 1. Divide the class into groups of 4-5: Students again decide on a favorite meal to share with their family (can be the same or different from the LEARN activity). Students record the ingredients for their meal. The main meal should be recorded in the middle of their “What Makes my Meal?” chart. 2. Group Research: Students in each group research the ingredients in their meal to find those that have the least destructive environmental impact and best socio-economic benefits. Students record the certification each of their ingredients in parenthesis under the ingredient in the “What Makes My Meal?” chart (in place of the people involved in the LEARN activity). Resources to find certified products are below: <ol style="list-style-type: none"> Search the Rainforest Alliance page “Shop the Frog” http://www.rainforest-alliance.org/green-living/shopthefrog?country=93&province=all&category=178 to identify ingredients to use in your meal. Check out this article to “7 Food Certification Programs You Need to Eat Green” http://www.treehugger.com/green-food/7-food-certification-programs-you-need-to-eat-green.html to programs other than the Rainforest Alliance that are committed to various certification practices. Follow the links to each certification page to learn about specific ingredients to use in your meal. Check to see if they are all meeting ecological, social <i>and</i> economic needs. 3. Ingredients: As in the Learn activity, students work together to trace their meal back to the most basic parts or ingredients (usually a plant or animal). Each ingredient should be written off the main meal, with a line connecting it to the product. Students should use as many lines as necessary to connect the meal to the ingredients. (See example, page 6) 4. Certification: Now students go a step further to identify the certification given to each ingredient. Who was involved in getting the meal to them, the consumer? 	

IVC #2 Preparation and Outline	
TIME IVC Outline Preparation: 30 minutes (before IVC) IVC #2: 60 min. + 30 min. dial-in = 90 minutes TOTAL	MATERIALS Paper, pen/pencil, notebook, agenda, campaign project guide
OVERVIEW The outline below will be used as a guide for discussion during the second IVC. Have students review and complete this outline prior to IVC #2.	

INTERACTIVE VIDEOCONFERENCE #2: PEER-TO-PEER DISCUSSION & ACTIVITY SHOWCASE	
Day	
Date	
Tech Dial-in Time	____:____ (Hour: Minute AM / PM)
Conference Start Time	____:____ (Hour: Minute AM / PM)

I. Introduction and Greetings (5 minutes)

GNG facilitator welcomes all participating students to the second IVC meeting. One representative from each school shares:

- Number of students participating in today's IVC:
- Something interesting that has happened in your community since the last IVC:
- An interesting fact you learned from the last IVC

II. ACT: Presentation of Plan to Consume with a Conscience (20 minutes)

Students will share Plan to Consume with a Conscience and GNG facilitator will guide the conversation amongst participants. Questions may include:

- Have you see the effects of unsustainable agriculture practices in your community?
- Do you think you could make the changes you proposed to your favorite meals to lessen your negative impact on the environment and aid sustainable livelihoods of farmers?
- What role should youth play in impacting creating a sustainable environment?

III. Peer Discussion (25 minutes)

GNG facilitator will guide a discussion among the student participants. Questions may include:

- How do agriculture practices and sustainability affect your local community?
- What most interests you in the discussion of environmental, social and economic sustainability?
- How can I make responsible consumption choices?
- How do my peers see sustainability?
- Are these issues an international problem, a national problem or both? If so, how?

IV. Conclusion (5 minutes)

GNG facilitator thanks all students and teachers for participating and reminds participants to reconnect on the Pulse+ Online Platform.

REFLECT

Reflect & Connect	
TIME 15 minutes <i>(Either immediately following or shortly after IVC)</i>	MATERIALS Pen, paper, internet access to online platform
OVERVIEW Engage your students in a short reflective conversation on their experiences to date. Complete the online educator feedback survey with your students' reflections in mind.	
INSTRUCTIONS <ol style="list-style-type: none"> REFLECT on your Conversation: <ul style="list-style-type: none"> What were some of the similarities and differences among different certification programs? How did feedback from your peers influence your plans for finalizing your project? Complete the Student Reflection Survey: http://www.surveymonkey.com/s/R8QVZCD Complete the Educator Reflection Survey: http://www.surveymonkey.com/s/RVLQG6R CONNECT on Google Plus: <ul style="list-style-type: none"> Visit the Pulse+ Community to continue the conversation: https://plus.google.com/communities/107560589114643213566/stream/bba3bdd6-cd2f-4528-bb62-0843e7678e71 <ul style="list-style-type: none"> What did you learn about consuming with a conscience? What is your answer to the driving question: How do our food consumption habits impact the environment? Take Action! Develop an action plan to tell others about the value and impact of certification practices. Go further and help teach others how to identify food products that have gone through a certification process. See if you're local grocery store supplies sustainable products. If not, see if you can help the store manager or head of the company learn more about the value of certified products to consumers—and our planet. If you want to get more involved with the Rainforest Alliance's work, support their Adopt- A-Rainforest projects. Through Adopt-A-Rainforest, individuals, school groups and other organizations contribute funding to small conservation groups in tropical countries that work to stop rainforest destruction. Donations to the Adopt-A-Rainforest projects support the purchase and sustainable management of tropical forest lands. 	