ILLICIT LESSON PLAN GRADES 9-12
STANDARDS: ECONOMICS, 3; GEOGRAPHY, 11

From Inception to Consumption—Understanding the Global Supply Chain

Overview:
Supply chains consist of a network of people and activities that help move a product from inception to consumption by the end user. However, counterfeit and pirated goods have infiltrated supply chains and present serious problems for legitimate businesses. In this lesson plan, students will learn about global supply chains and will examine the different supply chain stages for a legal and illegal product.

Activity #1

Essential Questions: What is a supply chain?
Materials needed: Handout, “Simple Supply Chain Diagram,” and a world map

Directions:
1. On the board, write this definition of “supply chain” – A network of people and activities that help move a product from inception to consumption by the end user.

2. Ask students to help identify the various materials needed to make a candy bar. Write the ingredients on the board as they are brought up by individual students and ask students to point out on a map where the materials come from. Use the following list as a guide:

Cocoa – West Africa, Central and South America, and parts of Asia
Nuts – Worldwide (depends upon type of nut)
Aluminum Foil (for wrapper) – West Indies, North America, and Australia
Sugar – Brazil (primarily), India, and China
Paper (for wrapper) – North America
Raisins – California, Turkey, Chile
Milk – United States
Corn Syrup – United States, Europe, Brazil, and Mexico
Vanilla – Madagascar, Indonesia, China, and Mexico

3. Have students (in pairs or groups of no more than three) sketch out a supply chain process for a candy bar.

4. Ask each group to briefly explain their thinking. Highlight the key supply chain stages by writing them on the board as students say them. Key stages include: Supply (raw materials supplied to manufacturing); manufacturing (focuses on building, assembling, converting, or furnishing these raw materials into finished products); distribution (focuses on ensuring these products reach the consumers through an organized network of transporters, warehouses, and retailers); and consumption (customer).
5. Provide students with a copy of the handout “Simple Supply Chain Diagram” (see “Simple Supply Chain” attachment).

6. Point out to students that this illustration is an example of a very simple supply chain for a single product, where raw material is acquired from suppliers, transformed into finished goods in a single step, and then transported to distribution centers, and ultimately, customers. Explain that a typical supply chain is likely to be much more complex, involving a multitude of interchanges among the different stages and players.

Activity #2

Essential Questions: How do counterfeiting and piracy impact the supply chain process?

Materials needed: Handout, “Supply Chain Stages for Legal and Illegal Music CDs”

Directions:

1. As a class, discuss the different stages in the supply chain for a legal music CD and a pirated music CD.

2. Provide each student with a copy of the handout, “Supply Chain Stages for Legal and Illegal Music CDs” (see “Handout -- Supply Chain Stages” template attached).

3. Using the Teacher’s Guide (see "Teachers Guide" attached), lead a class discussion and have students follow along by filling in the details on their handouts.

4. Explain to students that the growing problems of counterfeiting and piracy threaten businesses and consumers in nearly every region of the world. Illegal products deceive the consumer and displace legitimate sales. In this music CD example, the illegal profits generated by these highly sophisticated operations come at the expense to the artists, songwriters, retailers, record labels and many others whose creative energies make music possible.

5. Present the following “Take Action” ideas:

A. To know if a CD has been pirated, check for the following:
   - The packaging has blurry graphics, weak or bad color.
   - The package or disc has misspelled words.
   - The price is often way below retail value.
   - You’re not buying it in a store, but at a flea market, from a street vendor, at a swap meet, or in a concert parking lot.
   - The record label is missing or it’s a company you’ve never heard of.
   - It has cheaply made insert cards, often without liner notes or multiple folds.
   - The sound quality is poor.

B. If you have been the victim of counterfeiters or modern-day pirates, report it at the U.S. Chamber of Commerce Web site www.thetruecosts.org.

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<tr>
<th>STAGE</th>
<th>LEGAL</th>
<th>ILLEGAL</th>
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<tr>
<td>Supply</td>
<td>What are the raw materials needed to make the CD and who supplies these raw materials?</td>
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<tr>
<td>Manufacturing</td>
<td>What does it take to make the CD?</td>
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<td>Distribution</td>
<td>How does the final product get to retailers?</td>
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<tr>
<td>Consumers</td>
<td>What does it take to get the final product to the end-users or ultimate target market?</td>
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# Supply Chain Stages for Legal and Illegal Music CDs

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<tr>
<td>Supply</td>
<td>Musicians create a recording. This includes a fair royalty or profit for the music artists or bands, personal managers, labels, marketing agents, engineers, producers, publisher (songwriter), etc. Copyrights established – copyright owner has the sole right to duplicate or authorize the duplication of this work, and distribute it.</td>
<td>Musicians create a recording. Work is reproduced and distributed without their permission. No royalties or profit are available to those involved in making/marketing CD.</td>
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<tr>
<td>Manufacturing</td>
<td>“Burning” and packaging the CD by recording industry – replication process to create millions of copies. CD manufacturing is done mainly in the countries where the music industry is strongest such as the US, Ireland, Japan, the UK, and other European countries. Typical Process: 1. A new digital master tape arrives at a CD pressing plant. 2. While the tape plays, a glass master disc is created. 3. From this glass master, a metal master, mother, and a stamper is created. 4. The stamper is then used to reflect the beams into and encode each new CD. 5. The CD is then assembled into its plastic and outer packaging. Copy protection mechanisms (e.g. licensed encryption keys, radio frequency identification tags, physical errors) are included to prevent users from copying.</td>
<td>Mass reproduction of copyrighted software and music – copies are either made from originals or from copies that are received from someone further up the supply chain. Russia, Mexico and China are major sources of pirated CDs. In some African and Latin American markets, there are only counterfeits because the legitimate industry has simply pulled out. Rewriting equipment, including stampers and masters, are used to manufacture counterfeits that closely resemble authentic CDs. (A single stamper can potentially be used to manufacture 50,000 to 80,000 counterfeit CDs or DVDs of a single copyrighted work.) Counterfeit FBI anti-piracy seals and silk-screened artwork to make them appear legitimate.</td>
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| Distribution   | CDs sent to wholesale distributor (i.e. music retailers and other independent music stores, dealers, broadcasters, record clubs, Internet). Companies (e.g. retailers) buy their CDs from a reputable distributor.                                                                                                              | CDs sent to wholesale distributor:  
• Fakes may be in same shipment as real CDs or may be hidden in other illegal/legal cargo shipments.  
• Fakes may be sold online directly from the factory without a wholesale distributor. A loose network of counterfeit dealers stay in regular contact and update each other whenever new counterfeit titles become available.                                                                                                                                                                                                                     |
| Consumers      | CDs sold at licensed stores or through licensed retail websites for $15-20.                                                                                                                                                                                                                                                                                                                                                                                           | Companies might buy the CDs and not know they are fakes (thus sold at standard price of $15-20) or CDs are put in warehouses where they await distribution through illegal avenues such as Internet (illegal retail Websites and online auction sites), street corners, or non-licensed stores – where they are sold for around $5.                                                                                                                                                                                                                     |
We hope that you found the educational materials for National Geographic’s Illicit: The Dark Trade to be valuable. To better understand your needs for future materials, we would like to hear your opinions. Your responses are of great help to us. Thanks!

How would you rate the educational materials for Illicit: The Dark Trade?

- Excellent
- Good
- Fair
- Poor
- Did not use

How many other educators have you shared the Illicit: The Dark Trade materials with?

- None
- 1-5
- 6-10
- 10+

How much time would you estimate you spent using the materials with your students?

- 1 to 2 hours
- 2 to 3 hours
- 4 to 5 hours
- > 4 hours
- Did not use

How likely are you to use the materials again?

- Very
- Somewhat
- Not Very
- Not at all

These materials were developed as companion to the TV show National Geographic’s Illicit: The Dark Trade. How interested are you in educational materials that are produced as companions to other National Geographic TV shows and movies?

- Very
- Somewhat
- Not Very
- Not at all

Have these materials increased your awareness of counterfeiting and its reach?

- Yes
- No

Does the National Geographic brand affect your likelihood to use the materials?

- I am more likely to use materials from National Geographic
- The National Geographic brand has no impact on my likelihood to use
- I am less likely to use materials from National Geographic

How likely are you to visit the US Chamber of Commerce website (www.thetruecosts.org) for more information about protecting yourself from counterfeit goods?

- Very
- Somewhat
- Not Very
- Not at all

What could National Geographic do to improve these types of materials in the future?


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Yes! I’d like to know about future National Geographic programs.

Email address: ___________________________

Zip Code: ___________________________

Please return this survey to National Geographic

By Mail: Jeff Dow
National Geographic
1145 17th Street NW
Washington, DC 20036

or by Fax: 202.775.6178
Attn: Jeff Dow

Thank You