

WHAT IS A SUPPLY CHAIN



Age Range: Can easily be customized for use with middle school and high school age students.

As a result of this lesson, students will understand that

- Many finished products that they purchase are made up of components from all over the world
- Many finished products that are purchased are processed and assembled in a variety of locations all over the world
- There are many different steps and processes in the creation of a finished product

As a result of this lesson, students will know that

- Supply chains are global
- Supply chains are the infrastructure for our global economy
- Supply chains affect many countries, communities, and individuals

As a result of this lesson, students will be able to

- Identify the different components of a supply chain
- Make a map of how raw materials and products reach their final destination
- Research a product and how it is made
- Make a succinct presentation on their chosen product
- Do focused research on their chosen product

Materials Needed

- Writing materials
- Butcher paper
- Internet Access
- World Map
- Sticky Notes

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LESSON

Warm-up Activity/ Introduction (5-10 Minutes)

This activity can be done without any prior knowledge of what a supply chain is, and is intended to be introductory in nature. Included in this lesson is all that you need to run a full 45-90 minute class period, or if you want this to be a shorter, more stand-alone lesson, there is a shorter version of the lesson built-in.

The teacher should give a brief introduction of what a supply chain is. The teacher should mention that a supply chain is how a product is made, and includes everything from the sourcing of raw materials, to manufacturing and distribution, and includes all of the transportation in between. The teacher can prompt the class with some of the below questions if appropriate:

Does anyone have an idea what a supply chain is?

What are some examples of a supply chain?

What is something you buy all the time? Do you know where it is made and how many places it went before you or your family purchased it?

Choosing a Product (3-5 Minutes)

Let the students know that they will be working on mapping out a supply chain is and how it operates. Have the students get into groups of 2-3. Then, each group should either a) choose an object that is in the classroom, or b) choose from a set of objects that have been pre-selected by the teacher. Some ideas for this could be:

Shoes

An item of clothing

Chair

Snack Item (Candy Bar, Chips, etc.)

Writing implement

Coffee Bean

Note: The more raw materials in the object (i.e. an electronic item) will make this more difficult and time consuming. This could be useful if the teacher wants to turn this into a larger research project or is working with students at a more advanced level.

Preset Product: If you want to make this activity shorter, and/or you are working with students that have limited experience with research, you can choose 1-2 products before the class, and provide all of the information on the source of raw materials, and the different locations on the supply chain. For example, you could choose a candy bar and provide the students with the below information (From [National Geographic Education](#)):

This are the different raw materials and their source for the components of one candy bar:

Cocoa—West Africa, Central and South America, and parts of Asia

Nuts—worldwide, depending on the 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

Identifying the Materials (20-30 Minutes)

Once the students have selected or been assigned their item for research, have them begin to research and fill out the “Identifying the Materials” worksheet (Appendix A). We have included some helpful research links at the end of the activity that the students can use as a starting point.

After each group has completed the worksheet, they should come up to the world map, and put a sticky note on the map next to each country where a raw material for their item came from. On the note, they should include their research item, name of the raw material, and what country it came from.

Depending on the age and experience of your students, we have a variety of recommendations for the research section of this activity:

1. If you want to make this a faster, easier, and more straightforward activity, we recommend that you follow the instructions in the “Choosing a Product” section that outline how to use a pre-set product with easy to find, or already available raw materials and their sourcing location.
2. If you want your students to spend some more time researching, but want them to be able to find all of the information needed without having to call the company or do extensive online research we recommend that you pre-select products from the website [sourcemap.com](https://www.sourcemap.com), and direct the students to that website for their research (we also recommend that you spend a couple of minutes with the students on the site to make sure they understand the key and format of the maps provided).
3. If you want this to be a longer, or even multi-lesson activity, you can allow the students to choose the products they want outside of preset options, and help guide them in the process of research, which will most likely include web research, company phone calls, and work in the library.

Drawing the Map (10-20 Minutes)

Once the students have completed the “Identifying the Materials” worksheet, they should begin the “Mapping the Supply Chain” worksheet (Appendix B).

Group Presentations and Discussion (The time remaining)

Each group will be responsible for a report back on their findings. Have each group prepare a brief, 1-2 minute presentation on their supply chain map where they explain the following (if all of the students are working on 1-2 preset items you can skip the report back section, and finish the activity with a whole group discussion with the time you have remaining):

What item did your group choose to study?

What materials did the groups identify?

Where were the materials sourced?

Where was the item manufactured?

What were the three main take-aways for your group?

After the small group presentations are done, the teacher should lead an all group discussion about supply chains and what the students learned today. The questions below can be used to help guide the conversation:

Do supply chains change the way you think about these products? If yes or no, why and how?

What surprised you about today’s lesson? Why?

How many different people do you think are engaged in the supply chain of the product that you chose?

What kind of positive and negative effects do you think a supply chain has on the people involved?

What kind of positive and negative effects do you think a supply chain has on the environment around the globe?

What are some ways that a supply chain could be shortened? Do you think it should be shortened? Why or why not?

Can you think of any products whose supply chain is completely within your city? What about your state, or country?

Was it easy to find information about the corporations making your product and their supply chains? Do you think that it should be?

Resources for Student Research:

[Source Map](#)

[Clean Clothes Campaign](#)

[SweatFree Communities](#)

[National Geographic for Teachers](#)

[Sweatfree Purchasing Consortium](#)

[CorpWatch](#)

[Business and Human Rights Resource Centre](#)

[Maquila Solidarity Network](#)

[Fashioning an Ethical Industry](#)

APPENDIX A

IDENTIFYING THE MATERIALS

Group Member Names: _____ Date: _____

What is your Item: _____

WHAT ARE THE DIFFERENT RAW MATERIALS OR INGREDIENTS THAT MAKE-UP YOUR ITEM?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

NOW THAT YOU HAVE EXPLORED THE RAW MATERIALS NEEDED TO CREATE YOUR PRODUCT, WRITE DOWN WHAT THOSE MATERIALS ARE, AND WHERE THEY COME FROM.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

NOW, GOT TO THE WORLD MAP AT THE FRONT OF THE ROOM AND PLACE A STICKY NOTE NEXT TO THE COUNTRIES WHERE YOUR DIFFERENT RAW MATERIALS COME FROM. ON YOUR STICKY NOTE WRITE:

1. The name of your finished product (include company name if you have the information).
2. The name of the raw material.
3. The name of the country the raw material was sourced in.

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MAPPING THE SUPPLY CHAIN

Sugar, Brazil
INGREDIENT + COUNTRY

CONNECT THE INGREDIENTS TO THE MANUFACTURERS. LABEL HOW THEY GET THERE.

Example: Train

Mexico
MANUFACTURER

MANUFACTURER

MANUFACTURER

MANUFACTURER

CONNECT THE MANUFACTURERS TO THE DISTRIBUTORS. LABEL HOW THEY GET THERE.

Example: Boat

Texas
DISTRIBUTOR LOCATION

CONNECT THE DISTRIBUTOR TO THE RETAILER. LABEL HOW THE PRODUCT GOT THERE.

Example: Plane

CVS, Atlanta, GA
PURCHASE LOCATION

\$0.99
FINAL PRICE