

# Chips of Trade



## Introduction

The Earth is a finite system with limited resources that people must compete for and share. The more people there are on the planet, the smaller each person's share of resources. But resources are not divided equally amongst all the world's countries. Some countries are rich in natural resources, like minerals, fossil fuels and timber, while others are not. International trade is based on the imports and exports of these natural resources and of the items that are manufactured from them. Countries with more resources to export are in a better financial position to import the resources they lack. For poor countries with few resources to export, it is difficult to afford the resources they need to import. Population growth compounds this trade deficit. As a country's population grows, the demand for more resources grows too.

## Materials

Poker chips  
Yarn or masking tape

## Part 1: Let The Chips Fall

### Procedure

1. Before class, count out poker chips so you have exactly twice as many chips as the number of students participating in the activity. If possible, use an equal number of red, white and blue chips.
2. Use yarn or masking tape to mark off a 12 feet x 12 feet space.
3. Spread the chips out within the marked off area at random.
4. Explain to the students that each of them represents a country and the chips represent resources. It is easier to maintain the health and well-being of a country's citizens if the country has a large and varied base of resources. This means that a country not only has resources in large quantities, but that it possesses assorted types of resources. Ask students to brainstorm what type of resources a country might need. Answers may include: food, fuel, minerals, cropland, access to clean water and timber.
5. Go over the terms export and import with the class.

**Export:** a product sold to other countries who can't or don't make enough of the item to meet their population's needs.

**Import:** a product bought from another country because there is

## Concept

Population growth impacts countries differently depending on their resource base. This can also impact countries' ability to trade.

## Objectives

Students will be able to:

- Describe how resources are inequitably distributed throughout the world.
- Explain the connection between a growing human population and possible effects on resource distribution.
- Analyze real-world import/export data from four countries.

## Subjects

Social studies (economics, geography)

## Skills

Observing, comparing and evaluating, critical thinking, analyzing data

## Method

Acting as countries in a simulation game, students discuss how resources are inequitably distributed throughout the world and how this imbalance motivates trade.



not enough to meet the population's needs.

6. Tell the students that upon a given signal each country should try to collect up to, but no more than, three chips.
7. Give a signal for students to collect chips from inside the square. It will be a bit chaotic but only briefly.
8. Separate the class into four groups as outlined below and inform them of the meaning of their collections.

**Group 1: Students with three chips.** These represent countries with rich resource bases. Such countries will be able to export more resources than other countries.

**Group 2: Students with two chips.** These represent countries with more limited resource bases. Exports will be possible but some imports may be needed.

**Group 3: Students with one chip.** These countries have a very limited resource base.\* Exports will be minimal and there will be a heavier reliance on imports.

**Group 4: Students with no chips.** These countries have virtually no resources\* to adequately support a human population. There is essentially no capability for exports and a maximum need for imports.

\*This may also be an issue of access. Some countries that would fit into these groups are resource rich but have no means to access the resources. For example, Afghanistan sits on huge deposits of minerals like copper, iron, and lithium but has been unable to tap them.

## Discussion Questions

1. Have the students look around the room and take note of how many "countries" received three chips, two chips, one chip, and no chips respectively. What would it be like to live in a country in each group?
2. Have students imagine that each chip color represents a different kind of resource. Does each country have a large and well-balanced resource base (three chips of three different colors)?
  - a. If you don't have a well-balanced resource base, what could you do to improve your situation?  
*You could trade with other countries to get the resources you need.*
  - b. How does Group 1's ability to export resources affect their wealth and well-being?  
*With more to export, Group 1 is able to bring in more revenue for the country and have more purchasing power for goods they want to import from other countries.*
  - c. How does Group 4's dependence on the resources of other countries affect their wealth and well-being?  
*With fewer resources to sell, Group 4 brings in little revenue in which to purchase goods from other countries. This increases the cycle of poverty.*
3. Based on the resources you have, would you like to see your country's population increase, decrease, or stay the same? Why?

*Answers will vary. Countries with a lot of resources might feel they are able to support a population increase, while countries with fewer resources may prefer for their population to stay stable or*



decrease.

4. As a country's leader, how does knowing the population of your country help you plan for the future?  
*Consider what would happen if your population became much bigger. Much smaller. If your population becomes larger, you might need to import more goods to provide for the needs of more people. If your population shrinks, it may be challenging to create enough goods to export, especially if there is a shrinking labor pool.*

## Part 2: What's A Country Worth?

### Procedure

1. The chart on page 6 provides four countries as examples that would fall into each group. Share the chart with your class by projecting it or making photocopies.
2. Go over the Discussion Questions as a class.

### Discussion Questions

1. You'll notice that Canada and Colombia export approximately the same amount as they import. However, this isn't the case with Nepal and Burundi. How can a country afford to import more than it exports?

*The country may borrow money from other countries in order to purchase the items they need but potentially leaving them with large amounts of debt. The government of a country could raise funds from the citizens through various taxes.*

2. What appears to be the relationship between a country's ranking in exports with their ranking in imports?

*A country that exports a lot has the financial resources to import a lot of goods, so their ranking is high for both. Similarly, the lower a country's ranking as an exporter, the fewer dollars available to import goods.*

3. There is a large difference among the worth of each country's exports. Ask the students to calculate the amount of exports per capita for each country.

*Canada: \$11,105; Columbia: \$697; Nepal: \$32; Burundi: \$12*

4. How is the per capita share of exports impacted by the size of the country's population?

*The larger the population, the smaller the share per person.*

5. How might the population growth rate affect a country's resources?

*The higher the rate of population growth, the fewer resources there are to go around. More resources need to be mined/produced/grown in order to provide for more people. The amount of non-renewable resources will decrease as more people are using them. Some people may go hungry/thirsty or lack shelter, etc. if there aren't enough resources to go around.*

6. Aside from natural resources or manufactured goods to export, what other economic assets could provide a country with the purchasing power to import needed goods?



*Answers may include tourism (for recreation and natural beauty) and services like banking. For example, The Cayman Islands is a thriving financial center and tourist destination, but must import 90 percent of its goods.*

## Assessment

Provide students with the following information on Nigeria (and show them Nigeria's location on a world map or globe). Students write a paragraph analyzing possible economic prospects for Nigeria based on this data for expected population growth and resources for trade.

### Nigeria

Population	182 million
Growth Rate	2.5%
Expected population in 2030	262 million
Main Exports	Petroleum and petroleum products, cocoa, rubber
Total worth of exports	\$51 billion
Per capita share of exports	\$279
World Ranking for Exports	#52
Main imports	Machinery, chemicals, manufactured goods, food, live animals
Total worth of imports	\$48 billion
World Ranking for Imports	#51

## Follow Up Activity

The World Factbook is an excellent online resource administered by the Central Intelligence Agency (CIA) where students can find all sorts of data for every country, including data on population, exports and imports. Send students to the link: <https://www.cia.gov/library/publications/the-world-factbook/>, click on the button for "Guide to Country Comparisons" and then explore the ranked data under "Economy" to find which country leads the world in exports (China) and which country leads the world in imports (United States). While China's export amount is much larger than the U.S. amount (42 percent), its population is also much larger (four times as large). Have students:

- Calculate the per capita export amount for these two countries.
- Find the leading exports and imports from each country and their main trading partners.
- Determine which group would represent these countries in the chips activity

	Group 1	Group 2	Group 3	Group 4	
Country	Canada	Colombia	Nepal	Burundi	World
Population	36.2 million	48.8 million	28.4 million	11.1 million	7.4 billion
Birth Rate	11	16	22	42	20
Death Rate	8	6	7	10	8
Growth Rate	0.3%	1.0%	1.5%	3.2%	1.2%
Main Exports	Petroleum, natural gas, vehicles/parts, machinery, wood pulp, chemicals, plastic, timber, fertilizer	Petroleum, coffee, coal, nickel, emeralds, bananas, apparel, cut flowers	Clothing, carpets, textiles, juice, jute goods, pulses	Coffee, tea, sugar, cotton, hides	
Total worth of exports	\$402 billion	\$34 billion	\$898 million	\$132 million	\$15.6 trillion
Per capita share of exports					
World Ranking for Exports	12th	55th	159th	190th	
Main imports	Machinery & equipment, motor vehicles & parts, crude oil, chemicals, electricity, durable consumer goods	Industrial equipment, transportation equipment, consumer goods, paper, chemicals, fuel	Petroleum products, machinery & equipment, gold, electrical goods, medicine	Capital goods**, petroleum products, food	
Total worth of imports	\$419 billion	\$47 billion	\$7 billion	\$683 million	\$15.3 trillion
World Ranking of Imports	9th	50th	109th	186th	

\*pulses include beans, lentils, chickpeas, and dry peas.

\*\*capital goods are goods used in the production of consumer goods.

Sources: CIA World Factbook, 2016 estimates; Population Reference Bureau, 2016 World Population Data Sheet