



MONEY CHANGES

Subject Matter: Mathematics, Social Studies

Grade Levels: 6-8

Time Allotment: 3-4 hours

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Overview

Students learn to convert U.S. dollars into the currency of a country they are studying by applying an Internet currency conversion site to exports of that country.

Learning Objectives

Students will be able to:

- Research facts about a specified country, finding economic and population data on the Internet.
- Identify exports and currency of a specified country.
- Find the price in U.S. dollars of an exported item.
- Use an Internet currency conversion program to convert the price in U.S. dollars to the price in the currency of their country.

Oregon Standards Available at:

<http://www.ode.state.or.us/cifs>

Social Sciences - Economics

- Identify and give examples of how the United States economy affects citizens of both the United States and other countries.
- Understand the function of money.

Mathematics - Calculations and Estimations

- Perform calculations on whole numbers, fractions, decimals and integers using paper and pencil, calculators and/or computers.

Social Studies Standards From the National Council for the Social Studies

(<http://www.ncss.org/standards/toc.html>)

- Social studies programs should include experiences that provide for the study of how people organize for the production, distribution and consumption of goods and services.
- Social studies programs should include experiences that provide for the study of global connections and interdependence.

Mathematics Standards From the National Council of Teachers of Mathematics

(<http://standards.nctm.org/>)

The assessment of students' ability to use mathematics in solving problems should provide evidence that they can:

- Formulate problems.
- Apply a variety of strategies to solve problems.
- Solve problems.
- Verify and interpret results.
- Generalize solutions.

In grades 5-8, the mathematics curriculum should include the continued development of number and number relationships so that students can:

- Understand, represent and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential and scientific notation) in real-world and mathematical problem situations.
- Develop number sense for whole numbers, fractions, decimals, integers and rational numbers.
- Understand and apply ratios, proportions and percents in a wide variety of situations.
- Investigate relationships among fractions, decimals and percents.

In grades 5-8, the mathematics curriculum should include exploration of statistics in real-world situations so that students can:

- Systematically collect, organize and describe data.
- Construct, read and interpret tables, charts and graphs.
- Make inferences and convincing arguments that are based on data analysis.
- Evaluate arguments that are based on data analysis.

- Develop an appreciation for statistical methods as powerful means for decision-making.

Media Components

Video

Check the link at <http://www.opb.org/edmedia/trs/> to find access to the video(s) from unitedstreaming™ referenced in this lesson plan.

- “South America Today: Brazil” (20:21)
 - **Clip:** “Economy” (02:30)

Web

- **Importers-Exporters.com**
This Web site provides price quotes for importers and exporters of yellow corn, soybeans and sugar.
<http://www.importers-exporters.com/corn.htm>
- **OANDA Corporation**
This site has a very workable currency converter.
<http://www.oanda.com/convert/classic>
- **Portaportal**
Portaportal allows you to set up links to a series of Web sites that students can then access from any computer. Using Portaportal saves students from having to retype each Web address.
<http://www.portaportal.com/>

As part of the lesson, you will want to have students do research on Web sites such as those listed below:

- **Central Intelligence Agency - World Factbook**
Loads of information about countries in a clear format.
<http://www.cia.gov/cia/publications/factbook/>
- **Atlapedia Online**
A site created by the Latimer Clark Corporation that contains full-color physical maps, political maps and key facts and statistics on countries of the world.
<http://www.atlapedia.com/>
- **World Bank**
This site includes a lot of data about countries, similar to the CIA World Factbook.
<http://www.worldbank.org/data/countrydata/countrydata.html>

- **UN CyberSchoolBus**
This United Nations site provides country data. Also linked to this site (CyberSchoolBus InfoNation) is a way to compare aspects, such as economy, of up to five countries.
<http://157.150.195.28/cyberschoolbus/infonation/index.asp>
- **Yahoo.com**
This site has many links to online stores.
<http://shopping.yahoo.com/>
- **x-rates.com**
This site includes photos of about 10 different currencies.
http://www.x-rates.com/photo_list.html

Materials

- Access to computers with Internet capability
- A copy of the South American Money Exchange Worksheet (at end of lesson plan)
- A projector or television that is hooked up to a computer to play the video clip
- A map of the part of the area your class will be studying
- A map that includes Brazil

Prep for Teachers

Familiarize yourself with the video clip and **cue** it to start at 00:17.

Photocopy South American Money Exchange Worksheet.

Bookmark Web sites you will be using during the Introductory Activity. Set up Web sites students will be using in Portaportal on the school server or in a desktop folder so they will not need to type in Web addresses.

Introductory Activity

South America will be used in this lesson as a part of the world for student focus. This focus can be adapted as needed to integrate with your social studies or language arts curriculum.

Step 1: Explain to students that, as part of their study of South America, they are going to be learning a little about the exports of one South American country, Brazil. Locate Brazil on a map. Lead a discussion of what an export is and how it benefits the country that is exporting it.

Step 2: Make sure the video clip, “Economy” (02:30), from the video, “South America Today: Brazil” (20:21), is **cued** to 00:17 after the narrator says, “... except oil and coal.”

Before playing the first segment of the video clip, provide students with a **Focus for Media Interaction** by telling them they need to write down at least three of the gems that Brazil is famous for exporting.

Play the video through the gem discussion and **pause** at 00:45 after the narrator says, "... testifies better than words as to the mineral wealth found in Brazil." Ask students to share answers.

Step 3: The next segment of the video clip will address the manufactured exports. Provide students with a **Focus for Media Interaction** by telling them they need to write down the four main manufactured exports of Brazil.

Play the video and **pause** at 00:59. Allow students time to complete their lists of manufactured exports (custom machinery, airplanes, autos and military equipment). Ask students to discuss whether they are surprised by this list and if so, why. This could lead into a discussion of the broad generalizations we often have about other cultures.

Step 4: The next segment of the video will address the agricultural exports of Brazil. Provide students with a **Focus for Media Interaction** by asking them to write down three agricultural items that they think Brazil might export. Ask them to check their guesses as they watch the next section of the video clip and to write down the six agricultural items that Brazil does export.

Play the video until 01:19 and **pause**. Allow students to complete their lists (coffee, sugar, orange juice, cocoa, soybeans and tobacco). Discuss how the lists of predicted exports matches the actual exports. Are there any surprises on the list?

Step 5: Choose one of the exports from Brazil and tell students you are going to show them how the price that we pay in U.S. dollars would look in Brazilian Reals.

Using a computer hooked up to a projector, go to a search engine like Google. Provide students with a **Focus for Media Interaction** by asking them to help you find the price of a metric ton (MT) of soybeans. Search for "soy beans" + price and you'll find the Web site, <http://www.importers-exporters.com/corn.htm>. It is important to model searching for the site for students since that is what you will be asking them to do. On this site, about a quarter of the way down, you will find a "Soy Beans" heading.

Ask students what price they found. Recently the price of soybeans was \$185 per MT (metric ton - a metric ton is 1,000 kilograms). Tell students that you will now show them how to convert that price into the Brazilian currency of Reals.

Step 6: Provide students with a **Focus for Media Interaction** by asking them to mentally estimate how many Reals a metric ton of soybeans would cost after you show them how many Reals are in one dollar.

Go to the currency conversion site you have bookmarked at <http://www.oanda.com/convert/classic>. The amount of 1 U.S. dollar is already listed in the “from box.” Scroll down to the Brazilian Real in the “To list” and click the “Convert Now” button. Recently, the exchange rate converted 1 U.S. dollar into 3.377 Reals. Students can estimate that to be a 1 to 3 ratio, giving them about 555 Reals. Under the dollars-to-Reals amount is the conversion done the other direction, Reals-to-dollars.

Step 7: To let students check their work, click the “New Conversion” button and put 185 (no dollar sign) into the “Convert Amount” box. Brazilian Reals should already be on the “To” menu. Click the “Convert Now” button and, using the numbers above, the program comes up with 185 U.S. Dollar = 624.745 Brazilian Real. Discuss the differences likely to occur between estimations and actual amounts.

Learning Activities

Step 1: Setting Up the Activity

Divide students into groups. The size of the group depends on the area of the world you are studying, the number of computers to which you have access and the capability of your students. You might choose to have some students work alone, even though they may be working on the same country as other students in the class. Less capable students can also be teamed with more capable students.

Assign each group or student a country. If you are studying South America, you might want to consider assigning Brazil to less capable students, since they will already have a sense of what they need to know.

When assigning countries, eliminate the countries that have currencies with a one-on-one exchange rate for the dollar. You can find this information by checking each of the countries on the currency converter. For instance, in Central America, one Panamanian Balboa is equal to one U.S. dollar, which doesn't make the math very interesting.

Give each student/group a copy of the South American Money Exchange Worksheet. Show students the sites you have set up for their research, either on <http://www.portaportal.com/> or as a folder on the desktop or server of each computer. Limiting sites to ones that contain useful information will allow students both to learn searching techniques and be successful in a minimum amount of time.

Sites that are useful for the country research are:

- <http://www.cia.gov/cia/publications/factbook/>
- <http://www.atlapedia.com/>
- <http://www.worldbank.org/data/countrydata/countrydata.html>
- <http://157.150.195.28/cyberschoolbus/infonation/index.asp>

Step 2: Research

Students will research information about their country and its economy, making comparisons to the U.S.

Let students work on filling in the questions on the South American Money Exchange Worksheet. Allow approximately one hour for this part of the lesson.

As described on the Exchanging Money Worksheet, have students go to an Internet store to find the prices of five different items. You can use Yahoo's site (<http://shopping.yahoo.com/>) or list just a few stores on Portaportal to restrict student choices a bit more. Students then use the currency converter to find the prices in the currency of their country.

Culminating Activity

Students will take the information from their two worksheets to create a poster about their country. They can include other information about the country, as well as any pictures that seem appropriate. There should be cutout pictures or drawings of the five products and an explanation of how much those products would cost in the currency of their country. If possible, students should include a picture of the currency. Some pictures can be found at http://www.x-rates.com/photo_list.html.

The poster can be designed from the point of view of a child in that country describing the country and his/her life to others, or it can be informational only. Posters can be presented to the class and/or posted in the classroom.

Cross-Curricular Extensions

Language Arts

- Write a story from the point of view of a student from the country.
- Read a book from a writer from the country.
- Read a book about people in the country.

Art

- Draw the flag of the country.
- Make a collage about the country.

Science

- Research scientific discoveries made by people in the country.
- Learn about the natural resources of the country.
- Learn about the environmental issues facing the country.

Community Connections

- Invite an importer who imports products from your area of the world to come and talk to the class.
- Invite a banker to come and talk to the class, bringing examples of currencies from the countries you are studying.
- Put on a cultural fair for your school or an elementary school, and have your students explain what they have learned and share their posters. For more information about this idea, go to <http://teachers.net/lessons/posts/195.html> (this lesson by Jennifer Jones at Lafayette Elementary School, Oklahoma City, OK, describes a multicultural fair with a money exchange included).
- Have parents, friends or neighbors who have traveled to your part of the world visit the class and talk about their experiences.

Name: _____

South American Money Exchange

The country you have been assigned to is _____.

Use the Internet to answer the following questions:

- 1) What is the population of your country?

- 2) What are five exports of your country?

- 3) What is the name of the currency in your country?

- 4) What language(s) are spoken in your country?

- 5) What is the average (per capita) income of your country in U.S. dollars? What is the average income of the United States? What is the difference between the two (subtract)?

- 6) What is the life expectancy of your country? What is the life expectancy in the United States? Why do you think they are different?

Exchanging Money

What is 1 U.S. dollar worth in the currency of your country?

Fill in the table below by finding the prices (in U.S. dollars) of 5 different products at an Internet store. Use the currency converter to change those U.S. dollar prices into the currency of your country.

Product Name	Price in U.S. Dollars	Price in Your Country