



How Did My Favorite Pair of Shoes Come on the Market?

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This curriculum unit is recommended for:
Japanese Immersion Grade 3

Keywords: mathematics, sweatshop, cheap labor, child labor, data, statistics

Teaching Standards: See [Appendix 1](#) for teaching standards addressed in this unit.

Synopsis:

This unit will focus on deepening elementary school students' understanding of mathematics concepts of data and statistics, and strengthening their mathematics skills. This unit intends to raise students' interests in mathematics and eagerness to be fluent in mathematical thinking and operations by using their favorite items such as shoes. Students tend to put more effort in their work if the topics are something they like or have interest in, hoping that the data unit will be more relevant to meaningful to the students by incorporating with their interests into the data unit.

I plan to teach this unit during the coming year to 23 students in the 3rd Grade Japanese Immersion Class.

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Introduction

I would like to help my students to see mathematics beyond their classroom and how they are surrounded by mathematics. Currently, the students do not think that mathematics has any use outside the class. Once my students become more interested in mathematics beyond their classroom such as how their favorite pair of shoes comes on the market, my students will understand that knowing more about mathematics actually helpful to them. Having strong interest in a topic in a mathematics class increases students' motivation to tackle with problems to solve.^{1,2,3,4,5} This unit will be taught at the beginning of the data unit to promote students' interest in data. This unit will be designed mainly for the 3rd grade Japanese immersion class; however, this unit can be adapted in any class.

This unit is planned to provide one complete cycle of data collection, creating graphic representations, and analyzing the data to my students by having them start from data collection. In this unit, the students will pick five of their favorite T-shirts and report which country they are made. When the students make representation of survey result, I will discuss different types of graphs (pictograph, bar graph, line graph, and circle graph). Students need to know the differences of categorical data and numerical data. Students need to be able to construct a line plot, which shows the frequency of data on number line. I will discuss and let my class explore which graphs are more appropriate for the categorical data and which graphs are more appropriate for the numerical data. I will emphasize how to create a line plot and how to interpret data on the central tendency of measurement. It is important for students to be able to understand the distribution and trend of the data that are analyzed.

In this unit, I would like to connect cheap labor issues with cotton mills in early 1900s in North Carolina, especially in regions around Mecklenburg County. I would like to open discussion to the students about the sweatshop problems that we face now. I would like to raise their awareness about products we use, which might have connection to this problem. I would like to discuss with my class why some products have a label that states "Made in USA" or "USA made ingredients." I would also like to discuss as a class why some people avoided some products from the big famous companies use sweatshops in developing countries and how that kind of movements would help to make conditions of the workers better that they are in now. I will use the table with hourly wages of different countries and have the class discuss what they could buy with these hourly wages. I will ask students to find out how many hours a person would need to work to purchase an item of student's favorites, such as a character T-shirt for example. I will continue to help the students to find the difference between the price paid here and the costs of materials and wages combined to raise their awareness of issues with cheap labors and conditions of workers.

Demographics

I teach at E.E. Waddell Language Academy, a countywide public K-8 language magnet school. We have a population of 1,381 with 937 students at the elementary level and 444 students in middle school. E.E. Waddell offers five target languages: Chinese, French, German, Japanese,

and Spanish. Our school is very diverse. The majority of the staff is bilingual and 30 percent of the faculty are non-U.S. citizens; 92 teachers are from around the world. The student body is very diverse as well: 46 percent White, 24 percent African American, 20 percent Hispanic, 5 percent Asian and 6 percent multiracial. 34 percent of the K-8 students qualify for free or reduced lunch. The Parent Teacher Student Organization (PTSO) is extremely active and supportive. Our school was a North Carolina Honor School of Excellence for several years. Waddell was awarded the national 2012 American Council on the Teaching of Foreign Languages (ACTFL) Melba D. Woodruff Prize for Exemplary Foreign Language Program. This prize recognizes schools that align their curricula with the World Readiness Standards for Language Learning and integrate languages with content areas. The Magnet Schools of America recognized E.E. Waddell as a Magnet School of Distinction in 2016.

I teach the 3rd Grade Japanese Immersion class at E.E. Waddell Language Academy. My subjects include mathematics, science, social studies, and Japanese Language Arts in Japanese. I also co-teach with English class with English language art teacher one block per day. My students started the Japanese Program in Kindergarten through a lottery process; the student body in my class is diverse ethnically, developmentally, as well as special education wise with students in the talent development program and students with learning disabilities.

Rationale

Numbers – data, statistics, etc. surround us. We do not necessarily understand what these numbers mean or represent. When we gain knowledge how to interpret them, these numbers start projecting all sorts of things including social issues. Even though we do not completely understand everything in detail, we should equip ourselves with knowledge and tool to grasp general ideas behind the numbers, statistics, and data. Our job as teachers is to provide our students with opportunities to learn about numbers that surround them inside and outside of their school buildings. Even though we typically teach data unit in mathematics class, students need to interpret data in the other subjects as well. Students often collect data, construct representation of the data, and analyze the result in science. Social studies and language arts use many graphs and data as a part of their informational texts. I list subjects that use numbers, statistics, and data; this shows that it would be difficult to help students to gain understand all about numbers in isolation. I should say that it would make more sense to teach all aspects of numbers in the contexts that would be easier for students to understand. Guststein and Peterson state in their book *Rethinking Mathematics: Teaching Social Justice by the Numbers* that teachers can make mathematics learning more lively, accessible, and meaningful for their students with appropriate materials.⁶ This is what I would like to accomplish by writing this curriculum unit; I would like to teach my students how to connect social issues and numbers. I would like to help my students realize that numbers will remain just numbers unless they start looking into what they really representing and it is up to them to dig deeper to understand what is attached to these numbers. For example, when I taught 5th grade students, I often heard my students talk about the brands and prices of the pair of shoes they liked, but I never heard them talk about where and to whom the money they paid went. I included one of the activities called “Transnational Capital Auction” from *Rethinking Mathematics: Teaching Social Justice by the Numbers* to help to raise students’ awareness of capitalism and their role as consumers of products on the market.⁷

Since many aspects of our lives are intertwined with each other, using real data that students can relate to would bring more meaning to their study about the topic including the numbers that are involved in the topic. Blanton suggests that teachers need to help students to build their foundation for algebraic thinking in elementary school.⁸ Using students' interests promotes students' willingness to practice their algebraic skills. I would like this unit to act as the starting point for my students no matter where they are in terms of mathematical performance level for them to advance to the next level through higher-level thinking.^{9, 10, 11, 12, 13}

I believe providing opportunities for students to understand mathematics is everywhere and is not something students do only at school. Providing various opportunities for mathematical learning will help students to be motivated to learn mathematics and to engage themselves more with mathematics related activities. Students tend to retain and apply learned knowledge and skills when students acquire knowledge and practice skills through activities that make sense to them. Mathematics knowledge and skills are no exception to this; students need to make sense of mathematics concepts in order for them to be able to internalize the concepts and apply them in real life situations.^{14, 15} Even when students are able to tell there are 4 quarters in a dollar and each quarter is worth 25 cents, quite often the same students have to stop and think how many sets of 25s are in 100. Students have tendency to understand dollars and they do not deal with the same numbers if the numbers do not have a dollar or cent sign attached to them. Money makes more sense to students; therefore, using money as a starter of mathematics study should make sense to students. I would like to start this unit with a discussion of what money means and continue the unit by exploring how people in the past developed money, how money works within our daily life, and how money and mathematics involved each other. My goal is that students increase their interest and motivation for mathematical study through these activates. Students can maximize their learning when they treat problems that are posed by teachers as their own and gain ownership of their learning.^{16, 17, 18, 19, 20}

Content Objectives

This unit covers concepts of data in 3rd grade mathematics. Students need to be able to interpret data from sets of numbers, tables, plots, and graphs. They also need to be able to construct representation of data with line plots, bar graphs, and pictographs.

This unit also covers concepts of local history as well as economics and financial literacy from 3rd grade social studies. Students learn about historical events of local communities and their developments. Students also learn about a basic idea of supply and demand. They study about how resources influenced the development of local economy.

To integrate social studies and mathematics objectives and to help students to understand that contents they study at school are related and intertwined, using cheap labor and sweatshop issues in data lessons in mathematics class bring relevance to students. They need to realize that cheap labor and sweatshops exist now and how they are contributing to the issues without realizing.

Classroom Activities

Survey about Students' Opinions about Mathematics

Use the survey below to know about the students in class, especially about their thoughts about mathematics. (Please see appendix for English version of the student survey.) It is important for teachers to know about their students to plan lessons and to decide how to deliver instructions. Teachers can learn many aspects of their students through gaining insights on students' thoughts about mathematics and how they see themselves as mathematics learners. This information helps teachers to design their lessons.^{20, 21}

Cotton Mill Workers in North Carolina in 1900s and Current Sweatshops around the World

Use photographs taken at the cotton mills in Mecklenburg County and in State of North Carolina in late 1800s and early 1900s to start discussion how cotton mills influenced the developments of Mecklenburg County and North Carolina. The photographs are available on the Charlotte-Mecklenburg Historic Landmark Commission²² and the NC Learn website²³. Also, invite students to discuss what they notice about the cotton mill workers in these photographs, and pose questions why many children were employed at these cotton mills.

Next, introduce the wages of the North Carolina Textile Mills in 1904 from the Learn NC website²³ and the mill workers' poor working conditions describes in documents from the Cotton Mills In New South Charlotte²² and the NC Learn website²². Have students find out the cost of living in early 1900s from the list of retail prices of selected food and discuss how the textile mill workers might have lived as a family in late 1800s and early 1900s. Have students create a Venn diagram to compare and contrast how the students live now and how children lived in late 1800s and early 1900s to gain clear understanding of living conditions of the cotton mill workers.

Explain to students what sweatshops are and existing issues with sweatshops, which are poor working conditions, long working hours without proper rest, and cheap labor.^{24, 25, 26, 27} Also, explain the meaning "fair trade" and function of fair trade movements. Show some examples of fair trade items such as coffee beans or tea and have students find and read statements about the fair trade and the propose of it. Pose students a question why it is important to pay attention to how and where the items we purchase and consume come from. Have students exchange ideas and discuss.

Data collection – Number and Countries of Manufactures of Students' Favorite T-shirts

Prior to this activity, have students choose five of their favorite T-shirts and record the countries where they were made. I chose T-shirts for this activity; however, a teacher can discuss with students to choose an item to use with the activity. Students need to make connections with

outside of their classrooms and have meaning of what they are learning to make classroom activities relevant to them.^{28, 29, 30}

After students collected data for the item of their choice, have students compile their data as a class to create different representations in a frequency table, bar graph by countries, and line plot by countries and students. Use the hourly wages for the listed countries, costs of items for necessarily items such as food in each country to compare with the costs in the U.S. to raise students' awareness of working conditions of workers in the sweatshops. The website such as Numbeo provides cost of living and food prices by country for students to compare.³¹

The Transnational Capital Auction: A Game of Survival

This activity is from *Rethinking Mathematics: Teaching Social Justice by the Numbers*.^{6,7} This activity helps students to understand the basic system of capitalism and transnational capital that exist but students are not able to see or hold in their hands. The students will build their understandings through this activity how sweatshops (cheaper labor and poor working conditions) are created and where most of profit would go. I modified the activity to use with my 3rd grade students. I named the adapted version of the game as “Bringing the Big Company Money and Stay in Power Survival Game” to make it easier for my students to grasp the meaning of the game. For the original version of the Transnational Capital Auction: A Game of Survival³², please refer to the Teacher Resources of the Appendix 2.

Before the Game:

Explain to students that they are the leaders of poor countries and they are trying to convince the big international companies to build their factory in your country to bring more money from foreign countries into your country. Pass out the instructions for the game to the students and go over each point one by one. Students need explanations for the terms that are not familiar to them and take questions from the students for clarification. After students understand the purpose of the game, hand out explanation sheet for the credit and auction sheet. Again, students need explanation about each category and terms that they do not use regularly. Display the action result sheet to the class to emphasize the difference between “Friendly to Big Company Money Credits” and “game point” to help students understand that the concept of “race to the bottom” to maintain own power and wealth; the students need understand that they need to keep the balance of own wealth and maintaining the power as leaders of a poor country.

During the Game:

Once students become ready to play the game, divide the class into 7 groups. Instruct students that they need to stay away from each other because they do not want other countries to know what you are bidding for the silent auction. Remind the students that offering more “Friendly to Big Company Money Credits”, less favor they are doing to their people as country leaders.

For the first round, lead the bidding by going one category at a time. Use display a sample of the bidding slip to specify where each group need to write each credit score of their choice. After all groups add up their credit scores, collect the bidding sheets. Record each

group's total "Friendly to Big Company Money Credits" on the game recording sheet and add the game points accordingly. Explain to the students again that the highest "Friendly to the Big Company Money Credits" does not earn the highest game points. Ask the students to state the reason behind this rule. When students do not have clear understanding of keeping the balance of gaining more wealth and maintaining own power, explain this situation the students are in as the leaders of the poor countries.

Repeat the same procedures for the round 2 through 5. Gather the groups together for the results of the silent auctions to announce the winner of the game.

After the Game:

As a whole class, conduct a class discussion on the points below:

- How would families be able to survive with low wages?
- What it would mean to have no environmental laws in a country? How does it affect people's lives in a poor/bad environment to live? Who would be affected the most?
- How does "Fair Trade Movement" differ from the idea of "Friendly to Big Company Money"?
- Create a T-chart for benefits and disadvantages of having big foreign companies operate in poor countries.

Assessment of Students' Understanding

Have each student create a poster with their findings including countries where their favorite T-shirts are made, comparison of costs of items, and student's reflection on what they have learned from the series of activities. Display students' posters in a classroom for students to critique classmates' posters.

After the students critique each other's poster, go back to the after the topics for auction game to discuss as a whole class to determine if there is any changes of their thoughts about the activities. Once students express their ideas and thoughts, instruct the students to write own reflections about their experience through the activities as a final reflection of the lesson.

Appendix 1: Implementing Teaching Standards

Common Core Mathematics Standards Grade 3 Measurement and Data (CCSS.3.MD):

Represent and interpret data: Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with increasing precision with this cluster are: scale, scaled picture graph, scaled bar graph, line plot, data.

CCSS.3.MD.3:

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.³³

Students need to have opportunity to create a bar graph using a scale. While exploring data concepts, students should pose a question, collect data, analyze data, and interpret data. Students should be graphing data that is relevant to their lives.³⁴

North Carolina Essential Standards Social Studies (NC ES SS):

History: Understand how events, individuals and ideas have influenced the history of local and regional communities.

NC ES SS History 3.H.1.1:

Explain key historical events that occurred in the local community and regions over time.

Students need to understand that historical events often have effects on the local community or regions over time. Students also need to understand that past events may drive communities and regions to undergo a period of political, economic, or social change.³⁵

NC ES S.S. 3.H.1.3:

Exemplify the ideas that were significant in the development of local communities and regions.

Students need to understand that communities and regions often develop around shared philosophical ideas and common goals. Students need to understand that ideas concerning how people should live, work, and play may dictate the organization and development of a community or region. Students also need to understand that conflict between groups over varying ideas may lead to compromise over how people choose to live within a community.³⁵

Economics and Financial Literacy: Understand how the location of regions affects activity in a market economy.

NC ES S.S. 3.E.1.1:

Explain how location impacts supply and demand.

Students need to understand that prices may reflect the availability and location of resources. Students also need to understand that scarcity may dictate the economic choices of individuals; for example, careers, leisure activities, foods, manufactured products, etc.³⁵

NC SS ES 3.E.1.2:

Explain how locations of regions and natural resources influence economic development (industries developed around natural resources, rivers and coastal towns.)

Students need to understand that access to resources often facilitates or weakens economic growth in regions. Students also need to understand that people's decisions to locate, develop and make use of natural resources in particular regions will influence economic development.³⁵

Appendix 2: Teacher Resources

Websites

Progressions Documents for the Common Core Mathematics Standards

<http://ime.math.arizona.edu/progressions/>

This site offers progressions documents that students need to have for mathematics standards.

Charlotte-Mecklenburg Historic Landmark Commission

<http://landmarkscommission.org/>

This site offers Charlotte-Mecklenburg's history along with their historic sites, photographs, and documents including the history of cotton mills in Charlotte and Mecklenburg County.

Lean NC

<http://www.learnnc.org/>

This site offers resources for teachers in North Carolina including photographs and documents. The site has a photograph of child workers in textile mill and information about the weekly wages of textile mills from 1904.

Infoplease

<https://www.infoplease.com/business-finance/us-economy-and-federal-budget/retail-prices-selected-foods-us-cities-1890-2015>

This site lists retail prices of goods in the U.S. cities from 1890.

Institute for Global Labour and Human Rights

<http://www.globallabourrights.org/alerts/bangladesh-garment-wages-the-lowest-in-the-world-comparative-garment-worker-wages>

This site lists hourly wages of garment workers by counties. This site also has information about sweatshops.

Numbeo

<https://www.numbeo.com/common/about.jsp>

This site offers information about the cost of living and compares the cost between cities around the world.

Google Books

<https://books.google.com/books?id=gfv2NePkYngC&pg=PA131&lpg=PA131&dq=transnational+capital+auction+game+of+survival&source=bl&ots=BuF2X17CMj&sig=oolL0GdIcrrZSC12xTz8uR11sn0&hl=en&sa=X&ved=0ahUKEwjpiVSEhsnXAhVJ7GMKHYvhCaEQ6AEIRDAF#v=onepage&q=transnational%20capital%20auction%20game%20of%20survival&f=false>

This Google Books site offers the original version of the Transnational Auction: A Game of Survival in preview.

Common Core State Standards for Mathematics

<http://www.corestandards.org/Math/>

This site offers standards for Mathematical Practices and mathematical domains. North Carolina Department of Public Instruction Mathematics Wiki

<http://maccss.ncdpi.wikispaces.net/file/view/Unpacking%203%20Sept%202015.pdf/610785345/Unpacking%203%20Sept%202015.pdf>

This site offers unpacking documents for the 3rd grade mathematics standards.

North Carolina Department of Public Instruction Social Studies

<http://www.ncpublicschools.org/docs/curriculum/socialstudies/scos/unpacking/3rd.pdf>

This site offers unpacking document for the 3rd grade social studies standards.

Appendix 3: Mathematics Student Survey in Japanese

名前： _____ 番号： _____ 日付： _____

算数についてのアンケート

これからみんなと勉強していくために、教えてください。

- ① 算数で勉強することで、一番とくいなのは何ですか。

- ② 算数で勉強することで、一番苦手なのは何ですか。

- ③ 算数で勉強することを好きな順に1から番号をつけてください。また、その理由も書いてください。

- _____ 算数の問題をとく/アルジブラ
- _____ 整数
- _____ 分数
- _____ メジャメント
- _____ データ/グラフ
- _____ 図形

理由： _____

- ④ 算数は、他の科目とくらべて、好きですか、きらいですか、どちらでもないですか。それは、どうしてですか。

- _____ 好き
- _____ きらい
- _____ どちらでもない

理由： _____

ありがとうございました。

Appendix 4: Mathematics Student Survey in English

Name:

#: Date:

Survey About Mathematics

Please let me know about what you think about mathematics. This will help me to work with you in mathematics class this year.

1. Think all you do in mathematics, what do you think you are best at in mathematics?
2. Think all you do in mathematics, what do you think you are least good at in mathematics?
3. Please rank the concepts you learn mathematics class in the order of your preference (1 = like most and 6 = like least). Please write your reason(s) for your preference.

- Operations and Algebraic Thinking
- Operations and Fractions
- Operations and Numbers in Base Ten
- Measurement
- Data
- Geometry

Reason(s):

4. Comparing with other subjects, how do you like mathematics? Please choose one response and write your reason(s) for your choice.

- I like mathematics.
- I do not like mathematics.
- I neither like mathematics nor dislike mathematics.

Reason(s):

Thank you very much!
Furuya Sensei

Appendix 5: Classroom Materials for the Bringing the Big Company Money and Stay in Power Survival Game

Copies of Bringing the Big Company Money and Stay in Power Survival Game Instruction: 1 sheet per student

Bringing the Big Company Money and Stay in Power Survival Game Big Company Money Auction Credit Sheet: 1 sheet per student

Bid to Big Company Money Slip: 1 sheet per student as a sample and 5 sheets per group for the game

Bid to Big Company Money Scoring Sheet: 1 per game

Appendix 6: Bringing the Big Company Money and Stay in Power Survival Game Instruction

Name:

#:

Date:

Bringing the Big Company Money and Stay in Power Survival Game

Your Role:

- You are leaders of a poor country.
- You need to attract foreign money from multinational companies.
- Not all of your people are poor. Many, including a number of you, are quite wealthy.
- Your wealth depends largely on making deals with companies - you get various kickbacks, bribes, jobs for your family members, etc. Some of this is legal, some not.
- In order to for you to stay in power, you also need to provide jobs for your people. The owners of big companies are the ones who provide thousands of jobs in their factories.
- The more jobs you can bring into your country, the more you look good in the eyes of your people.
- Your government collects taxes from these companies, which help keep your government working.
- The bottom line is this: You badly need these companies to bring money in your country.

Your Problem:

You must compete with other poor countries that also need money. Companies are not stupid; so they let you know that if you want their money, you must compete with other countries by:

- Paying workers as little as possible
- Having few laws to regulate conditions of work (overtime, breaks, health, safety conditions, and age of workers).
- Having weak environmental laws
- Having low taxes on corporate profits.

Companies hold a silent auction with poor countries and who offers the companies the most “freedom” are the ones who get the money. A silent action means that you do not know until the end of the auction who has bid what.

How to Play the Game:

The goal of the game is to win the game by ending up with the most game points after 5 auction rounds.

Game Rule:

- Each country team's goal is to "win" by attracting multinational companies.
- The team that bids the 3rd highest number of "Friendly-to-Big Money" credits in a round gets 100 game points.
- The team with the 2nd highest number of big money credits gets 50 game points.
- The team with the 1st highest big money credits gets 25 game points.
- The other teams get no points for the round.

Things to Keep in Mind:

- Big Companies will go where the leaders who are "friendliest" to it.
- However, the "friendlier" you are to Big Companies; the angrier it may make your own people. Big companies want workers to work for very little and not to worry about environmental laws.
- This could raise the huge problem among workers or even start the violence, which would not be good for Big Companies or for you as leaders of your country.
- This is why the team bidding the highest number of Big Companies credits does not get the highest number of game points.

**Appendix 7: Bringing the Big Company Money and Stay in Power Survival Game
Big Company Money Auction Credit Sheet**

Minimum Wage/hr. (how much you pay for your workers per hour)

\$5.00.....zero “Friendly-to-Big-Company-Money” credits		
\$0.55.....76 credits	\$2.50.....46 credits	
\$4.75.....10 credits	\$2.25.....49 credits	\$0.45.....79 credits
\$4.50.....15 credits	\$2.00.....52 credits	\$0.35.....82 credits
\$4.25.....20 credits	\$1.75.....55 credits	\$0.30.....85 credits
\$4.00.....25 credits	\$1.50.....58 credits	\$0.25.....88 credits
\$3.75.....30 credits	\$1.25.....61 credits	\$0.20.....91 credits
\$3.50.....33 credits	\$1.00.....64 credits	\$0.15.....94 credits
\$3.25.....37 credits	\$0.85.....67 credits	\$0.10.....97 credits
\$3.00.....39 credits	\$0.75.....70 credits	\$0.05.....100 credits
\$2.75.....43 credits	\$0.65.....73 credits	

Child Labor (how old your worker needs to be in order for him/her to work at your factory)

Child labor below 16 is illegal / enforced	0 credits
Child labor below 16 is illegal/ weakly enforced...	15 credits
Child labor below 16 is illegal / not enforced.....	30 credits
Child labor below 14 is illegal / enforced.....	50 credits
Child labor below 14 is illegal/ weakly enforced...	70 credits
Child labor below 14 is illegal/ not enforced.....	85 credits
No Child labor laws.....	100 credits

Worker Organization (whether you allow your workers to form a group to protect themselves)

Unions fully legal / allowed to organize.....	0 credits
Unions fully legal / some restrictions on right to strike.....	15 credits
Only government approved unions legal/ some restrictions.....	30 credits
Only government organized unions allowed.....	45 credits
Unions banned / no right to strike.....	60 credits
Unions banned/no right to strike/ military stationed in factories...	85 credits
Suspected Union organizers jailed/military used against strikes...	100 credits

Taxation Rate on Big Company Profits (how much tax you ask the Big Company to pay to your country)

75%0 credits	35%.....40 credits
70%.....5 credits	30%.....50 credits
65%.....10 credits	25%.....60 credits
60%.....15 credits	20%.....70 credits
55%.....20 credits	15%.....75 credits
50%.....25 credits	10%.....80 credits
45%.....30 credits	5%.....90 credits
40%.....35 credits	No taxes....100 credits

Environmental Laws (how much you would like to protect your country's environment)

Strict environmental laws / enforced.....0 credits
Strict environmental laws / weakly enforced.....15 credits
Strict environmental laws / not often enforced.....30 credits
Some environmental laws / enforced.....50 credits
Some environmental laws / weakly enforced.....70 credits
Some environmental laws / not often enforced.....85 credits
Almost no environmental laws.....100 credits

Appendix 8: Bid to Big Company Money Slip

Bid to Big Company Money

COUNTRY # _____ **ROUND #** _____

Minimum wage credits _____

Child labor credits _____

Worker organizing credits _____

Taxation rate credits _____

Environmental laws credits _____

TOTAL CREDITS THIS ROUND _____

Bid to Big Company Money

COUNTRY # _____ **ROUND #** _____

Minimum wage credits _____

Child labor credits _____

Worker organizing credits _____

Taxation rate credits _____

Environmental laws credits _____

TOTAL CREDITS THIS ROUND _____

Appendix 9: Bid to Big Company Money Scoring Sheet

Rounds	Round 1		Round 2		Round 3		Round 4		Round 5	
Country	FT BCM Credits	Game Points	FT BCM Credits	Game Points	FT BCM Credits	Game Points	FT BCM Credits	Game Points	FT BCM Credits	Game Points
#1										
#2										
#3										
#4										
#5										
#6										
#7										

FTBCM Credits: Friendly-to-Big-Company-Money Credits

-
1. Martinie 2006
 2. Sommers 1992
 3. Strutchens 1999
 4. Turner & Strawhun 2007
 5. Wiest, Amankonah & Thomas 2011
 6. Guststein and Peterson 2013
 7. Bigelow 2013, 248-253
 8. Blanton 2008
 9. Ball 1991
 10. Franklyn 2002
 11. Hinders 1990
 12. Smith et al 2006
 13. The Common Core State Standards Writing Team 2012
 14. Bay-Williams and Martinie 2015
 15. Carpenter et. al 2015
 16. Sole 2015
 17. Turner 2007
 18. Wiest, Amankonah, & Thomas. 2011
 19. Zawojewski & Shaughnessy 2000
 20. Strutchens 1999
 21. Yow 2012
 22. Charlotte-Mecklenburg Historic Landmarks Commission 2017
 23. Learn NC
 24. Bilton 2017
 25. Carden 2017
 26. DoSomething.org 2015
 27. Powel & Skarbek 2006
 28. Chao & Jones 2017
 29. Stephan, Pugalee, Cline, J., & Cline, C. 2017
 30. National Council of Teachers of Mathematics 2014
 31. Numbeo 2009
 32. Google Books
 33. National Governors Association Center for Best Practices and the Council of Chief State School Officers 2010
 34. North Carolina Department of Public Instruction Mathematics Wiki 2015
 35. North Carolina Department of Public Instruction Social Studies Curriculum 2010

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