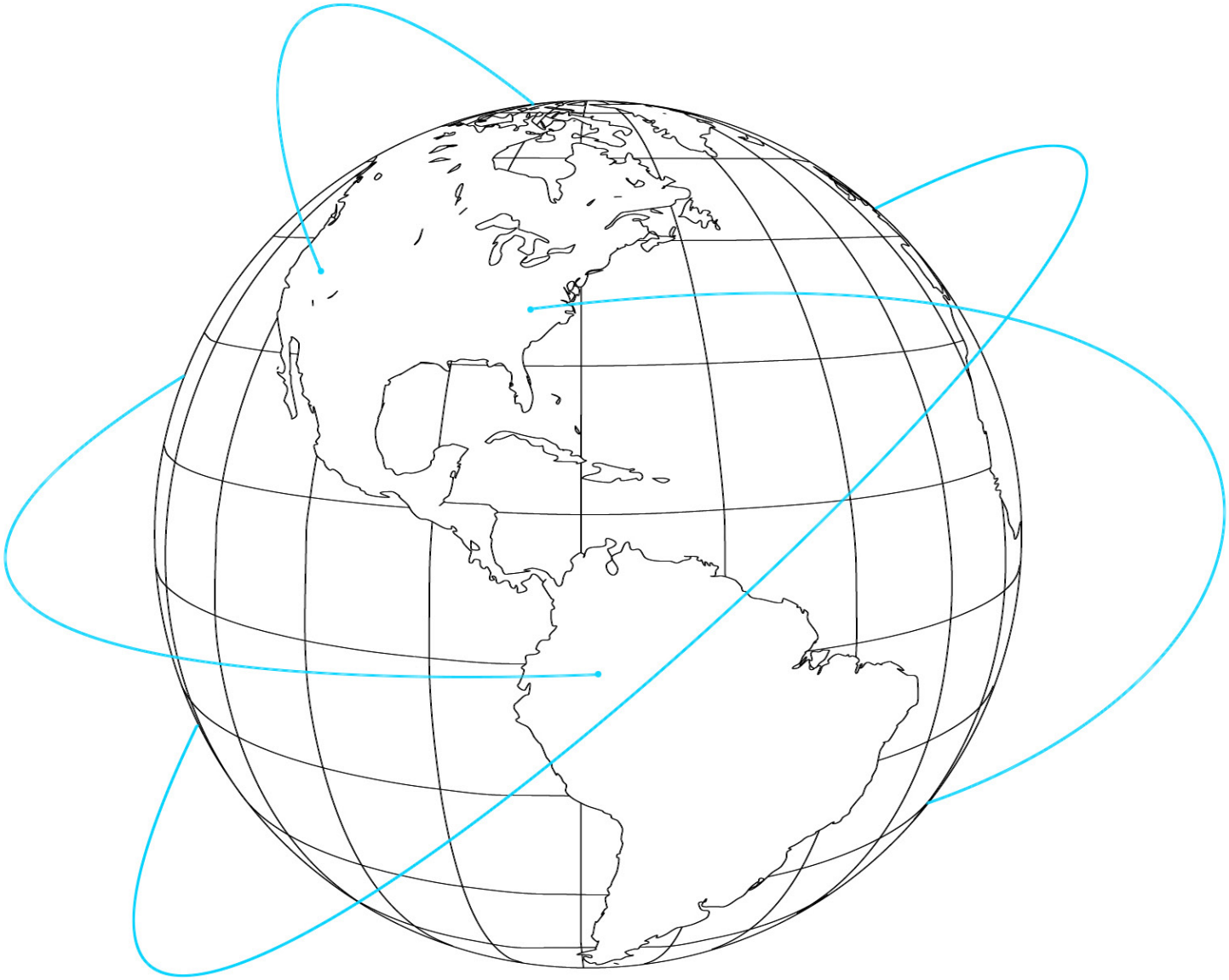
Why Don't We Just Make Everything Ourselves?

High School Lesson Plan on GLOBALIZATION



FEDERAL RESERVE BANK *of* NEW YORK

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Supporting Question 1: What are "absolute advantage" and "comparative advantage"?

Students will be able to…

- Define absolute and comparative advantage
- Compute absolute and comparative advantage from given numbers
- Explain why one person/group should specialize in the production of one good over another

Procedures

1. Begin by introducing students to the compelling question for this unit: Why don't we just make everything ourselves? *(Expected student responses may vary, ranging from "because I don't know how to do everything" to "it's easier to just do some things" to "I really should just do everything!")*

2. Explain to students that they will be answering that question by examining issues in globalization. Pass out Worksheet 1: Questions and Definitions. Define **globalization** as a phenomenon of increased economic integration among nations, characterized by the movement of people, ideas, social customs, and products across borders.[1]

3. Explain to students that the first supporting question to answer relates to the concepts of **absolute advantage** and **comparative advantage**. Tell the students that they will be engaging in a simulation to see how and why individuals or nations specialize.

4. Explain that the students live in the land of Glassanova. There is a lot of cleaning that needs to be done, and so the students have been volunteered for the task. Divide the class into two sides. One side will be Team A, the other side will Team B. Distribute Worksheet 2: The Land of Glassanova to all students.

5. To all of the students on Team A, distribute Handout 1. To all of the students on Team B, distribute Handout 2. Ask students on each team to color in different combinations of dish washing and window cleaning. For example, one student may spend six hours only doing one task and zero hours doing the other, while other students should mix and match various combinations (i.e. one student should wash dishes for five hours and clean windows for one, another student should wash dishes for four hours and clean windows for two, etc).

6. In small groups within their side, ask the students to complete Worksheet 2. Debrief, sharing answers out loud. [2]

7. Now explain to students that they will be using their data to better understand **absolute advantage** and **comparative advantage**. Ask students what the word "absolute" means. *(Expected student response: complete, total, supreme, the highest, etc.)* Ask students to predict what **absolute advantage** might mean in the context of washing dishes and windows. *(Expected student response: if absolute means the supreme or the highest, then absolute advantage is whichever team cleans the most items in the given amount of time.)*

8. Ask the students: who has the absolute advantage in cleaning windows? (*Expected student response: Team A.)* Who has the absolute advantage in washing dishes? *(Expected student response: Team A.)* Ask students if that means Team A should just do everything themselves. *(Answers may vary. Some students will likely conclude that Team A is "just better" and should do everything, while other students may note that even though Team A is faster they still could benefit from having someone else help.)*

9. Ask students what the word "comparative" means. *(Expected student response: related to the word compare, so it probably means in relation to, measured against, etc.)* Ask students to look at their charts on Worksheet 2. What do they notice happens to the number of dishes and windows as each team changes its mix of actions? *(Expected student response: as a team chose to wash dishes, it means that they have to give up/clean fewer windows.)*

[1] www.stlouisfed.org/publications/regional-economist/october-2007/trading-barbs-a-primer-on-the-globalization-debate

[2] Note to teachers: For question 5 on the worksheet, it discusses "What I'm giving up each time I pick up a dish/window." The economics term for "what I'm giving up" would be opportunity cost. For more on opportunity cost and a way to teach this more advanced economic concept, the St. Louis Fed has an explainer on the topic: https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-1-opportunity-cost

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10. Ask students to calculate for every dish that a team chooses to wash, how many windows do they not get to clean? *(Expected student response: Team A gives up .5 windows, while Team B gives up 2 windows.)* Now ask students every time they clean a window, how many dishes do they give up washing? *(Expected student response: Team A gives up 2 dishes, while Team B gives up .5 dishes.)*

11. Recall the word "comparative" from before. Ask students: if we want washed dishes, when you compare the two teams, which team gives up fewer windows? *(Expected student response: Team A.)* Then ask students, if we want clean windows, when you compare the two teams, which team gives up fewer dishes? *(Expected student response: Team B.)*

12. To summarize, Team A has the comparative advantage in dishes, and Team B has the comparative advantage in windows. Ask students why that would be the case. *(Expected student response: Team A has the comparative advantage in dishes because they give up fewer windows each time they wash a dish. Team B has the comparative advantage in windows because they give up fewer dishes to clean a window.)*

13. Now ask students which team should specialize in/focus on which task? *(Expected student response: Team A should wash dishes because they have the comparative advantage/give up fewer windows. Team B should clean windows because they have the comparative advantage/give up fewer dishes.)*

14. Refer back to Worksheet 1 and the supporting question. Ask students to complete the first supporting question column. *(Expected student response: Absolute advantage is when a person or country can produce more of a good or service than another person or country using the same resources. Comparative advantage is when a person or country gives up less of one good to make another good.)*

Supporting Question 2: What are some of the economic impacts of globalization?

Students will be able to…

- List economic impacts of globalization on Goods, Capital, and People
- Explain how economic impacts of globalization influence decisions to trade

Procedures

1. Now that students have an understanding of absolute and comparative advantage, it may feel that the compelling question "Why don't we just make everything ourselves?" is already answered. Explain to students that there is more to globalization than just computing the trade-off in goods you get from doing one thing or another.

2. Distribute Worksheet 3: Everyday Economics and Globalization and a copy of the globalization PDF from the Dallas Fed.[3] Divide the class into three groups. One group will look at the flow of Goods (pages 4-5 of the workbook), another group will look at the flow of Capital (pages 8-10 of the workbook), and the other group will look at the flow of People and Global Integration (pages 10-12 of the PDF).

3. In small groups within each section, have students read their section and answer the questions on Worksheet 3.

4. Organize a jigsaw with one student from each of the groups (Goods; Capital; People) and have them teach their peers about their particular topic.

5. Debrief with students on each subject, making sure that students understand how the movement of Goods, Capital, and People has changed over time with the advent of globalization.

6. On Worksheet 1, ask students to complete the pillar for Supporting Question 2. *(Expected student responses will vary, but should include some elements of Goods, Capital, and People.)*

7. Now that students have answered the two supporting questions on Worksheet 1, ask students to answer the compelling question at the top: "Why don't we just make everything ourselves?"

[3] www.dallasfed.org/~/media/documents/educate/everyday/globalization.pdf

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Extension Activities and Additional Resources

- Classroom teachers who would like to have their students conduct in-depth research on the topic of globalization and then take informed action by expressing their views on the subject can participate in the 2022-2023 High School Fed Challenge program hosted by the Federal Reserve Bank of New York. In this program students will write an academically researched podcast script about globalization. Select scripts will be published by the New York Fed in the *Journal of Future Economists*. More details about the program can be found here.[4]

- For students who would like to do a deeper dive into the terms of trade and how nations decide how much of a good to trade for other goods the Federal Reserve Bank of Dallas has activities and further readings.[5]

- The Federal Reserve Bank of St. Louis has an online module about absolute and comparative advantage. Join the superhero Jack of All Trades [6] as he explores that while he can do many things well, it is still worth it to specialize.

- An infographic [7] from the Federal Reserve Bank of Atlanta features key concepts in international trade including a list of terms, examples of how to compute terms of trade, and a brief analysis of the costs and benefits of trade. The infographic has an accompanying lesson as well.

[4] www.newyorkfed.org/outreach-and-education/high-school/high-school-fed-challenge
[5] www.dallasfed.org/educate/~/media/documents/educate/everyday/trade.pdf
[6] www.stlouisfed.org/education/comparative-advantage-short-courses-consumers/absolute-advantage
[7] www.atlantafed.org/education/teach/infographic-posters/trade.aspx

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Handouts

Materials

- Worksheet 1: Questions and Definitions
- Worksheet 2: The Land of Glassanova
- Worksheet 3: Everyday Economics and Globalization
- Handout 1: Team A
- Handout 2: Team B

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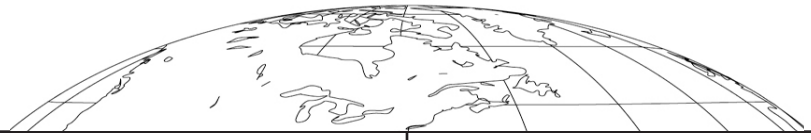
Compelling Question:
Why don't we just make everything ourselves?



Supporting Question 1:
What are absolute and comparative advantage?

Supporting Question 2:
What are some of the economic impacts of globalization?

Key Terms

Globalization:

Absolute advantage:

Comparative advantage:

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I am on Team ___

Hours spent washing dishes:	6	5	4	3	2	1	0
How many dishes did I wash?							
How many windows did I clean?							

Instructions

Assume for the moment that you will spend all day washing dishes or cleaning windows. Look at your work chart and using the data from your team members fill in the missing values.

1. If I spend all day (six hours) washing dishes, I will wash _____ dishes and clean _____ windows.
2. Now, if I spend five hours washing dishes and one hour cleaning windows, I will wash _____ dishes and clean _____ windows.
3. Working together with members of your team, complete the chart above, filling in the values for each combination of hours worked.
4. Let's look at the cost of our time. After all, I want to know what I'm giving up each time I pick up a dish to wash or step on the ladder to clean a window.
    a. If I spend one hour washing a dish, I will wash ___ dishes. But, I give up cleaning ___ windows in that time.
        i. Therefore, for every one dish that I wash I could have cleaned ___ windows.
    b. If I spend one hour cleaning a window, I will clean ___ windows. But, I give up washing ___ dishes in that time.
        i. Therefore, for every one window that I clean I could have washed ___ dishes.

Formulas

To calculate how many windows you give up for **one dish**:
1 dish = (number of windows cleaned in an hour) ÷ (number of dishes washed in an hour)

To calculate how many dishes you give up for **one window**:
1 window = (number of dishes washed in an hour) ÷ (number of windows cleaned in an hour)

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Okay, let's see how our teams did! We're going to look at absolute advantage now.

Absolute advantage is when _____

- If we spend all 6 hours washing dishes...
  - Team A washes ___ dishes.
  - Team B washes ___ dishes.
  - Which Team has the absolute advantage in washing dishes? ___
- If we spend all 6 hours cleaning windows...
  - Team A cleans ___ windows.
  - Team B cleans ___ windows.
  - Which team has the absolute advantage in cleaning windows? ___

Predictions

Which team should wash dishes? ___ Why? _____

_____

Which team should clean windows? ___ Why? _____

_____

Now, let's compare our teams to see what they give up when they do a particular task. This is going to focus on comparative advantage.

Comparative advantage is when _____

- Dishes
  - Every time Team A washes one dish, they give up ___ windows.
  - Every time Team B washes one dish, they give up ___ windows.
  - Which team gives up fewer windows? ___
- Windows
  - Every time Team A cleans one window, they give up ___ dishes.
  - Every time Team B cleans one window, they give up ___ dishes.
  - Which team gives up fewer dishes? ___

Now, in life (as a general rule) would you rather give up more things or fewer things? _____

It's the same with comparative advantage! You want to give up fewer things in life, so the team that gives up fewer of one item should focus on doing that particular task. Let's break it down:

1. Which team should focus on washing dishes?
   a. Well, we want to give up the fewest windows. Look at your numbers above. Team ___ should focus on washing dishes because they give up fewer windows.

2. Which team should focus on cleaning windows?
   a. Well, we want to give up the fewest dishes. Look at your numbers above. Team ___ should focus on cleaning windows because they give up fewer dishes.

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Flow of Goods (pages 4-5 of the workbook)

1. Before the rise of international trade where were goods usually manufactured?

2. Using the example of the Boeing 787, describe how the production process has evolved.

3. What is a possible benefit of this new production process from Question 2? What is a possible drawback?

4. Why has the rise of globalization led to the diffusion of services around the world?

Flow of Capital (pages 8-10 of the workbook)

1. What is the reason given for firms to put production facilities in particular countries?

2. What has happened to the flow of foreign investment in the past 50 years?

3. Describe the benefits and costs of foreign investment. How do the "swings" in investments affect countries during good economic times and during economic downturns?

4. Why is foreign exchange of currency such an important part of the global economy?

Flow of People and Integration (pages 10-12 of the workbook)

1. What are a few "push" factors of emigration? (i.e. Why do people leave their countries to come to another?)

2. What happens when highly skilled workers leave one country in a short period of time?

3. Politically, why have limits such as tariffs and quotas been put on immigration and goods?

4. Why might groups of nations sign trade agreements? And why would some citizens be opposed to these agreements?

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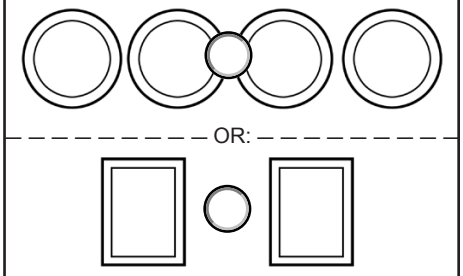
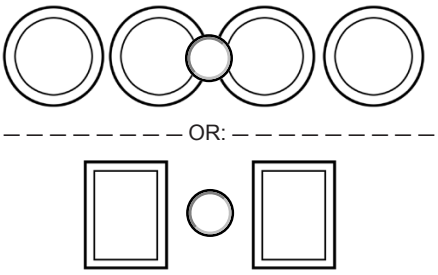
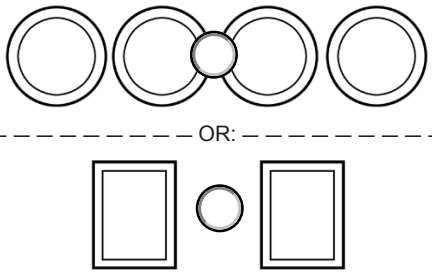
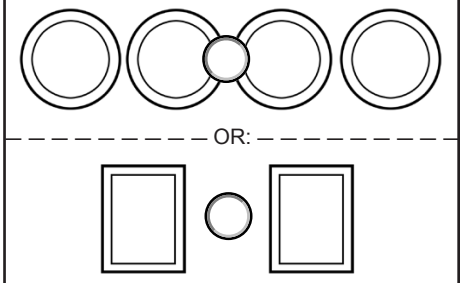
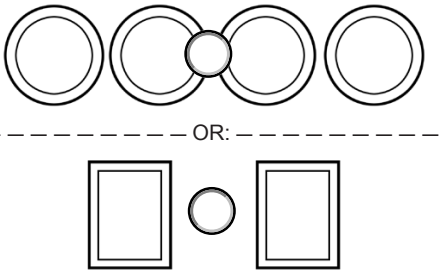
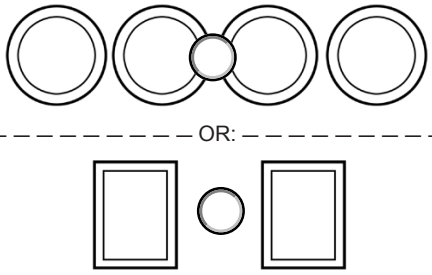
Handout 1: Team A

Welcome to GLASSANOVA

Welcome to Glassanova. You need to keep things squeaky clean in your land, so most of your days are spent washing dishes or cleaning windows. Clean dishes and windows make you happy, and you want as many of them spotless as possible. You have only six hours a day to spend doing so. You divide the day into one hour chunks of time EITHER washing 4 dishes OR cleaning 2 windows.

The cards below show what you can do in one hour. The circles represent dishes and the squares represent windows. In each hour block, color in either all of the dishes or all of the windows based on how you choose to spend your time. At the end, the choices that are colored in will tell you how much you got done in one day.

Hour 1	Hour 2	Hour 3
		
Hour 4	**Hour 5**	**Hour 6**
		

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Handout 2: Team B

Welcome to GLASSANOVA

Welcome to Glassanova. You need to keep things squeaky clean in your land, so most of your days are spent washing dishes or cleaning windows. Clean dishes and windows make you happy, and you want as many of them spotless as possible. You have only six hours a day to spend doing so. You divide the day into one hour chunks of time EITHER washing ½ dish OR cleaning 1 window.

The cards below show what you can do in one hour. The circles represent dishes and the squares represent windows. In each hour block, color in either all of the dishes or all of the windows based on how you choose to spend your time. At the end, the choices that are colored in will tell you how much you got done in one day.

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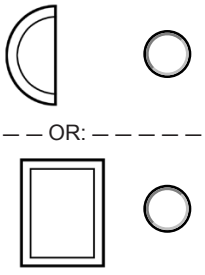
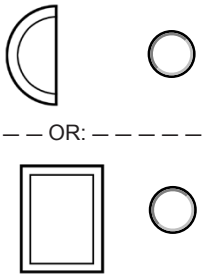
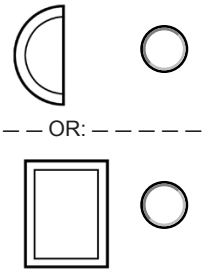
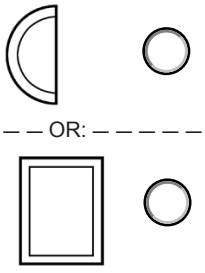
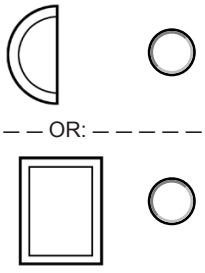
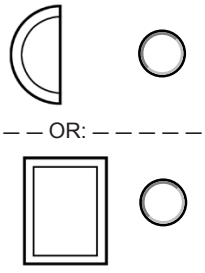
		
Hour 4	**Hour 5**	**Hour 6**
		

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Worksheet 2: The Land of Glassanova **[Answer Guide]**

I am on Team A / B

Hours spent washing dishes:	6	5	4	3	2	1	0
How many dishes did I wash?	24 3	20 2.5	16 2	12 1.5	8 1	4 .5	0 0
How many windows did I clean?	0 0	2 1	4 2	6 3	8 4	10 5	12 6

Instructions

Assume for the moment that you will spend all day washing dishes or cleaning windows. Look at your work chart and using the data from your team members fill in the missing values.

1. If I spend all day (six hours) washing dishes, I will wash 24 / 3 dishes and clean 0 / 0 windows.
2. Now, if I spend five hours washing dishes and one hour cleaning windows, I will wash 20 / 2.5 dishes and clean 2 / 1 windows.
3. Working together with members of your team, complete the chart above, filling in the values for each combination of hours worked.
4. Let's look at the cost of our time. After all, I want to know what I'm giving up each time I pick up a dish to wash or step on the ladder to clean a window.
    a. If I spend one hour washing a dish, I will wash 4 / .5 dishes. But, I give up cleaning 2 / 1 windows in that time.
        i. Therefore, for every one dish that I wash I could have cleaned .5 / 2 windows.
    b. If I spend one hour cleaning a window, I will clean 2 / 1 windows. But, I give up washing 4 / .5 dishes in that time.
        i. Therefore, for every one window that I clean I could have washed 2 / .5 dishes.

Formulas

To calculate how many windows you give up for **one dish**:
1 dish = (number of windows cleaned in an hour) ÷ (number of dishes washed in an hour)

To calculate how many dishes you give up for **one window**:
1 window = (number of dishes washed in an hour) ÷ (number of windows cleaned in an hour)

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Worksheet 2: The Land of Glassanova (cont'd) **[Answer Guide]**

Okay, let's see how our teams did! We're going to look at absolute advantage now.

Absolute advantage is when ONE INDIVIDUAL OR GROUP CAN PRODUCE MORE OF A GIVEN AMOUNT THAN ANOTHER INDIVIDUAL OR GROUP.

- If we spend all 6 hours washing dishes...
  - Team A washes 24 dishes.
  - Team B washes 3 dishes.
  - Which Team has the absolute advantage in washing dishes? A
- If we spend all 6 hours cleaning windows...
  - Team A cleans 12 windows.
  - Team B cleans 6 windows.
  - Which team has the absolute advantage in cleaning windows? A

Predictions

Which team should wash dishes? ___ Why? _____

_____

Which team should clean windows? ___ Why? _____

_____

Now let's compare our teams to see what they give up when they do a particular task. This is going to focus on comparative advantage.

Comparative advantage is when ONE INDIVIDUAL OR GROUP PRODUCES AT A LOWER OPPORTUNITY COST THAN ANOTHER INDIVIDUAL OR GROUP.

- Dishes
  - Every time Team A washes one dish, they give up .5 windows.
  - Every time Team B washes one dish, they give up 2 windows.
  - Which team gives up fewer windows? A
- Windows
  - Every time Team A cleans one window, they give up 2 dishes.
  - Every time Team B cleans one window, they give up .5 dishes.
  - Which team gives up fewer dishes? B

Now, in life (as a general rule) would you rather give up more things or fewer things? _____

It's the same with comparative advantage! You want to give up fewer things in life, so the team that gives up fewer of one item should focus on doing that particular task. Let's break it down:

1. Which team should focus on washing dishes?
   a. Well, we want to give up the fewest windows. Look at your numbers above. Team A should focus on washing dishes because they give up fewer windows.
2. Which team should focus on cleaning windows?
   a. Well, we want to give up the fewest dishes. Look at your numbers above. Team B should focus on cleaning windows because they give up fewer dishes.

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State and National Teaching Standards

New York

12.E4 THE TOOLS OF ECONOMIC POLICY IN A GLOBAL ECONOMY: Globalization and increased economic interdependence affect the United States economy significantly. The tools that the policy makers have available to address these issues are fiscal policy, monetary policy, and trade policy.

12.E4d: Trade policies and agreements (tariffs, quotas, embargoes) set the rules for trade between the United States and other nations. Agreeing on such rules is very difficult because each nation has different interests, and each nation has special interest groups trying to influence the negotiations.

New Jersey

Economics, Innovation and Technology: Exchange and Markets

- The specialization of labor leads to greater efficiency in the means of production and the circular flow of goods and services between markets through a medium of exchange.
- Governments affect both public and private markets through regulation, taxation, budget allocations, subsidies, tariffs, price regulation, and policies that increase or reduce production possibilities.

Economics, Innovation and Technology: Global Economy

- Economic globalization affects economic growth, labor markets, human rights guarantees, the environment, resource allocation, income distribution, and culture.

Connecticut

ECO 9–12.4: Analyze the role of comparative advantage in international trade of goods and services.

ECO 9–12.5: Explain how current globalization trends and policies affect economic growth, labor markets, rights of citizens, the environment, and resource and income distribution in different nations.

National Council for the Social Studies (NCSS) Framework for Teaching, Learning, and Assessment

Production, Distribution, and Consumption

Learners will understand…

- Scarcity and the uneven distribution of resources result in economic decisions, and foster consequences that may support cooperation or conflict
- The roles of institutions that are designed to support and regulate the economy (e.g. the Federal Reserve, and the World Bank)

Learners will be able to…

- Ask and find answers to questions about the production and distribution of goods and services int eh state and nation, and in a global context
- Compare various ways in which countries improve the output of goods and services and increase the level of income earned from producing goods and services

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