# Globalization Day 1 Comparative Advantage

## Grade level: 9–12

## Time estimate: 1 50- to 70-minute class period

By Staci Garber

### Lesson Overview

Students will simulate interdependence by creating a special baked product important to the people of Spheradell. In the second round of the simulation, each of Spheradell's 5 areas will begin to produce 2 of the 5 necessary products. Each area will exchange some of the resources for other needed resources, but they will each retain their original advantage in their native resources. Students will experience how comparative advantage leads to international trade.

### Objectives

- Define comparative advantage and interdependence
- Explain how comparative advantage leads to international trade
- Explain how interdependence creates efficiencies

### Vocabulary

- Opportunity cost
- Production possibilities
- Comparative advantage
- Interdependence

### Materials

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- Warm-up worksheet
- Colored and/or labeled cards representing resources from each area of Spheradell
    - Blue skybloom flakes (at least 40 blue cards)
    - Red wheat (At least 40 red cards)
    - Purple elderbloom fruit (at least 40 purple cards)
    - Yellow copper cups (at least 40 yellow cards)
    - Green ovens (at least 40 green cards)
- Optional table tents or colored tablecloths
- Optional baker's hat
- Optional candy, mini muffins, or mini cupcakes to represent Sphere-Sweet Treats (at least 40)
- Optional sandwich bags
- Letters from Strawkin the Elf (green paper), Vaelor the Griffin (purple paper), Gildron the Knight (yellow paper), Liora the Fairy Queen (red paper), and the mayor of Brindlebrook Country (blue paper), including preround questions
- Debrief questions
- Exit ticket

## Prework (if applicable)

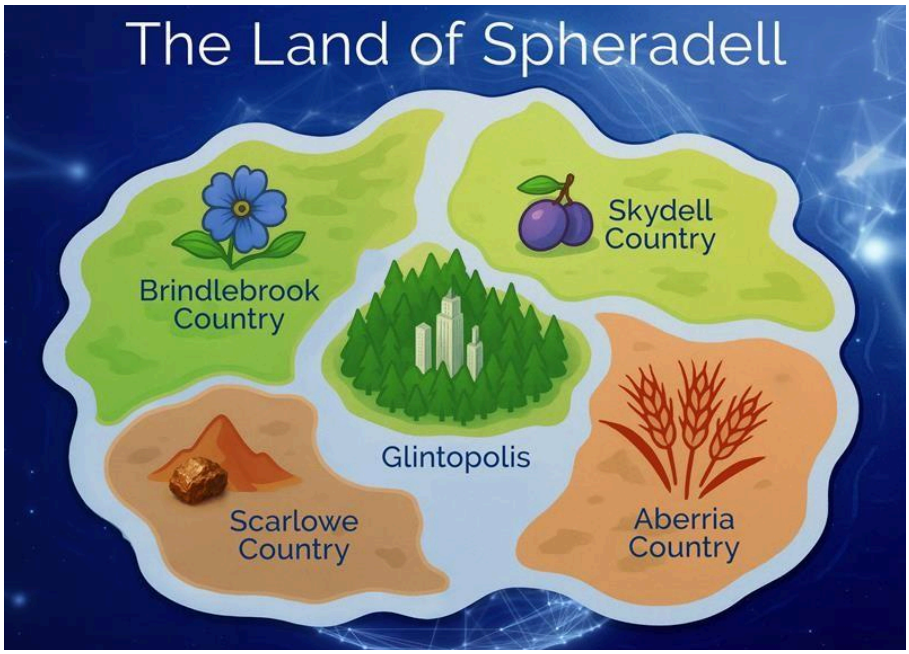
It is unnecessary to pre-teach microeconomic concepts before this lesson, but it would be helpful in the long run. A general familiarity with the determinants of supply and demand can help students graph the effects of different international trade policies on prices. Additionally, it may be helpful to cover the circular flow, including the types of resources: natural resources, human resources, capital resources, and entrepreneurship.

Print and cut the resource card and the Sphere-Sweet cards, or have enough candy or treats on hand to complete 2 rounds of the simulation. It may be helpful to laminate the cards for ease of reuse. It is also preferable, for ease of identification and trade, to print each resource on a different color of paper. Create at least 40 cards for each resource and 40 Sphere-Sweet cards or candies.

Display the Spheradell fantasy land map for student reference. Arrange students' desks into 5 groups that mimic the geography of Spheradell, with Glintopolis in the middle (green), Brindlebrook Country in the northwest (blue), Scarlowe Country in the southwest

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(yellow), Aberria Country in the southeast (red), and Skydell Country in the northeast (purple). These can be signified with table tents or by color.




## Warm-Up

Have students read the scenario on the worksheet as follows:

- Your economics teacher has introduced a group project due in 2 weeks that will require you to create groups to work on a project to conduct research, write a script, film a skit, and edit the video. You and your friends gather at a table to establish a group quickly. Your friend group consists of a student who is really good at research, a student who is a great writer and can perform basic video edits, and 2 students from the drama club who would be great at acting in and directing the video. The teacher notices that there is 1 student who is absent and will need a group when he returns. This student is an amazing film editor but doesn't work well with others. They're not really friends with anyone in your group, and they definitely don't fit in with your friends. Would you and your friends offer to include this student in your group? Why or why not?
- Give students a few minutes to respond on the warm-up page. Students who voted yes should stand on one side of the room, and students who voted no should stand on the other side of the room. Some students might indicate that they are unsure and want to stand in the middle. Let them.
- Have a few students from each group report on why they made the choices they made. Encourage students to switch sides if they find arguments compelling.

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- While students are standing in these groups, hand out cards to indicate which part of Oz they will occupy. Make sure that you have some "yes" voters, some "no" voters, and some "maybe" voters in each group.

## Lesson Activities

### First Round of Simulation

Have students read the letter from Strawkin the Elf as follows:

*Grand greetings, Spheradell citizens everywhere! Our illustrious wizard has appointed me as our new leader on account of my exceptional intellect! In celebration of this momentous occasion, I am directing all of Spheradell to throw public celebrations. Of course, the centerpiece of these celebrations will be our Sphere-Sweet Treats, as these tasty baked goods allow us to work together and highlight all that is good and abundant in the different parts of Spheradell! We will, of course, need wheat from the Aberria Country, the fruit of the elderbloom trees of Skydell Country, and the flakes of the skybloom flakes of Brindlebrook Country. After these ingredients are mixed, they will be poured into copper cups from Scarlowe Country and baked in the specialized ovens of Glintopolis! All areas of Spheradell are to produce and trade their resources to the best of their ability and take all 5 ingredients to Mr. Bakesmith of Spheradell, who will give you 1 Sphere-Sweet Treat for every set of resources you collect. Share the treats in your area in joyous celebration of the coronation of Strawkin the Elf!*

- You can be Mr. Bakesmith, or you can choose a student to do so.
- Show each group their resources and pass them out. It may be helpful to have all the resources divided into bags by section. Each bag should contain 20 resources. Give the skybloom flakes to the Brindlebrook Country, the wheat to the Aberria Country, the elderbloom fruit to the Skydell Country, the cups to the Scarlowe Country, and the ovens to Glintopolis.
- Lead students in discussion. If students are familiar with the type of resources: natural, human, capital, and entrepreneurship, ask them to identify each type. Most of the resources presented in the simulation are natural resources. Spheradell's ovens are capital resources. You may include in the discussion that labor is included in the resource cards because labor is required to harvest the natural resources and to forge the cups. Additionally, students might identify Strawkin as the entrepreneur who had the idea to make the treats. They might also say that the idea preexisted Strawkin but that Strawkin ordered this round of production.

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- If students are familiar with economic systems, this might be a good moment to review. Students may determine that since Strawkin ordered the creation of the treats, Spheradell is a command economy. The fact that they will be trading their resources indicates some form of market economy. This makes Spheradell a mixed economy.
- Give students about 3 minutes to plan in groups how they will trade for their resources.
- Open the market and allow students to trade. Give them about 10 minutes.
- Make sure your Mr. Bakersmith is actively trading the resources for Sphere-Sweet Treats. Allow people who have already made trades and those who are standing in line with all 5 resources to continue to exchange them at the end of the round.
- After all of the transactions are concluded, debrief the round by asking the following questions:
    - Which resource did your country produce? How many resources did you produce? (This will vary by group.)
    - How was your group able to gather the resources necessary to be able to create Sphere-Sweet Treats? (You want students to indicate that it was necessary to trade.)
    - Were all the resources used efficiently, or were some left over? If there are resources left over, how did that happen? (It is possible to create 20 Sphere-Sweet Treats. It is unlikely that your class will achieve this perfectly efficient use of resources. If they do, that will work fine. If they don't, it is slightly more realistic, because different areas will have different trading strategies. This is an ideal outcome, as it will create tension and inequity in the room, which will set up the second round nicely. If students wanted perfect efficiency, they would have had to trade more effectively. Have students record leftover resources on their team worksheet that has Strawkin's letter on it.)
    - How many Sphere-Sweet Treats did your group make and consume? (Have students write this answer on the team worksheet that has Strawkin's letter on it. If Sphere-Sweet Treats are distributed equally, each group will have 4. This is unlikely. Also, one benefit of using real candy, mini muffins, or cupcakes is that it will create real distribution problems in each group and ramp up the tension.)
    - How many Sphere-Sweet Treats did the class create in total? (Again, the total possible number of treats is 20. Add the group totals together to determine how many treats were created. Have students write this number on the team worksheet that has Strawkin's letter on it.)
    - Collect any leftover resources.

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## Second Round of Simulation

Hand each group a new letter and set of questions. Allow groups time to work through questions together before handing out Round 2 resources. (If you have a student Mr. Bakesmith, have the student join a group.)

Glintopolis: *Friends of Glintopolis, it has come to the attention of my very observant mind that the citizens of Skydell Country are not producing their resources nearly as effectively as possible. According to my careful calculations, I believe that Skydell Country is withholding the production of the fruit of the elderbloom tree. As such, I have ordered that elderbloom trees be planted here in the glorious Glintopolis under our beautiful metallic dome. To make space for the trees, we will have to remove 10 of our special ovens. Fortunately, our good friends in Brindlebrook Country have graciously offered to purchase 5 of these ovens. The profit from the sale will fully fund the planting of the trees. Many of our great workers will have to retrain to shift from running machinery to picking elderbloom fruit. My momentous brain knows that with the greatness of the workers of our city and the generous nature of our Glintopolis citizens, we will soon outproduce Skydell Country in elderbloom fruit! —Strawkin*

- Why has Glintopolis decided to plant elderbloom trees? (You are looking for students to search the text for the fact that Strawkin does not trust Skydell Country, so he wants Glintopolis to make its own elderbloom fruit.)
- The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What is the opportunity cost of planting elderbloom trees? (You are looking for students to search the text for the fact that Glintopolis will have to give up 10 ovens for elderbloom trees.)
- Why might elderbloom trees grow poorly in Glintopolis? (This question requires some critical thinking, and answers will vary. Students might come up with the fact that trees will do poorly under a dome, that the ground that used to house machinery will not be very fertile for elderbloom trees, thatGlintopolis workers will not be effective in maintaining and harvesting elderbloom fruit, or any other thing that might make Glintopolis less efficient than Skydell Country at planting, growing, and harvesting elderbloom fruit.)
- Do you think that Spheradell's shift to producing both elderbloom trees and ovens will result in more or fewer Sphere-Sweet Treats in the economy? Why? (You are asking for a prediction, so any answers are fine here as long as there is valid reasoning.)

Skydell Country: *Great citizens of Skydell Country, our most recent celebrations have uncovered a sinister truth about the metal producers of Scarlowe Country. The Scarlowes, under the command of my old friend, the Gildron, have been hoarding copper cups, reducing the number of copper cups available to the rest of us! Do not fear, great Skydellian people, for*

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*I have discovered metal under the elderbloom forest. We will immediately clear 10 acres of our forest to mine metal right here in our beautiful Skydell. It will take monumental courage to learn the new skills associated with metal mining and smithing, but I am certain that the brave people of Skydell are up to the challenge. —Your King, Vaelor the Griffin*

- Why has Skydell Country decided to forge copper cups? (You are looking for students to reach into the text to determine that the Vaelor distrusts the people of Scarlowe Country and has discovered metal nder the elderbloom forest.)
- The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What will Skydell Country give up in order to mine and smith metal (You are looking for students to reach into the text to determine that they are destroying 10 acres of elderbloom trees to mine metal)
- Why might it be difficult for the Skydellians to mine and smith metal (This question requires some critical thinking. Students might come up with the fact that it is unclear how much metal exists under Skydell or that workers who are used to harvesting elderbloom trees might be ill-suited to mining and smithing.)
- Do you think that the Skydellians's decision to produce both elderbloom fruit and copper cups will result in more or fewer Sphere-Sweet Treats in the economy? Why? (You are asking for a prediction here, so any answers are fine as long as there is valid reasoning.)

Scarlowe Country: *My dearest friends of Scarlowe Country, it breaks my heart to tell you this, but I feel that the citizens of Aberria Country have been withholding wheat despite Strawkin's glorious proclamation to produce as much as they could. I love Scarlowe Country with all my heart, so I am working diligently with the labor unions to redirect many laborers from mining and smithing to farming! Half of our workforce will leave the mines and the forges to build beautiful farms right here in Scarlowe Country. I could cry just thinking about wheat waving in the wind along miles of terrace farms in our own backyard. —With Love, Gildron*

- Why has Scarlowe Country decided to grow wheat? (You are looking for students to reach into the text for the fact that Gildron  feels as if the people of Aberria Country are not producing as much wheat as they can.)
- The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What will Scarlowe Country give up in order to produce wheat? (You are looking for students to reach into the text and determine that half of the workers are being retrained, so they should conclude that Scarlowe Country will give up half of its production of cups.)
- Why might it be difficult for the Scarlowes to grow and harvest wheat? (This question requires some critical thinking. Students might come up with the fact that workers have to retrain to grow wheat, so they might not be as efficient at it as they were at mining and

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smithing. It is also unclear whether the environment of Scarlowe Country is suitable to growing wheat. In fact, the mention of terracing indicates that growing wheat in Scarlowe Country might be more difficult than doing so in Aberria Country.)

- Do you think that Scarlowe Country's decision to produce both copper cups and wheat will result in more or fewer Sphere-Sweet Treats in the economy? Why? (You are asking for a prediction here, so any answers are fine as long as there is valid reasoning.)

Aberria Country: *Good people of Aberria Country, the recent celebration of our friend Strawkin has uncovered corruption in out west! Our former friends in Brindlebrook Country have been greedily keeping precious poppies for themselves. This is not very nice, but I have a very good plan for protecting our access to Sphere-Sweet Treats. The citizens of Aberria Country will now grow our own skybloom flakes! We are sure to be very good at producing skyblooms, so I have ordered 10 acres of wheat cleared so that skyblooms can be planted. Our farmers are currently training in skybloom care, maintenance, and harvesting techniques. —Good day, Liora, Fairy Queen*

- Why has Aberria Country decided to grow skybloom flakes? (You are looking for students to reach into the text and find that Liora believes that the people of Brindlebrook Country are withholding skybloom flakes.)
- The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What will the people of Aberria Country give up in order to grow skyblooms? (You are looking for students to reach into the text to determine that Aberria Country will give up 10 acres of wheat to produce skybloom flakes.)
- Why might it be difficult for the people of Aberria Country to grow and harvest skybloom flakes? (This question requires some critical thinking. The text mentions that farmers will have to be retrained. They may not be as efficient at farming skybloom flakes as they are at farming wheat. It is unclear whether or not the environment of Aberria Country is suitable for growing skyblooms.)
- Do you think that Aberria Country's decision to produce both wheat and skybloom flakes will result in more or fewer Sphere-Sweet Treats in the economy? Why? (You are asking for a prediction here, so any answers are fine as long as there is valid reasoning.)

Brindlebrook Country: *Merry men and maidens of Brindlebrook Country, as your mayor, I am much aggrieved! As owners of the most precious capital in all of Spheradell Glintopolis has been able to control Sphere-Sweet production! We, the Democratic people of Brindlebrook Country, must demand that we control the capital necessary to bake our magnificent Sphere-Sweet Treats! We have outsmarted Strawkin by buying 5 ovens from Glintopolis. To make room for these ovens, we must clear 10 acres of skybloom fields and retrain some of our*

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*skybloom farmers. Make merry, Brindlebrooks! Our skybloom flake production has never had a peer! Surely we will soon have more Sphere-Sweet Treats than ever! —Magnificently, your mayor*

- Why has Brindlebrook Country decided to buy ovens from the Glintopolis? (You are looking for students to reach into the text to find the accusation that Glintopolis is monopolizing the capital necessary to make Sphere Sweet Treats.)
- The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What are the people of Brindlebrook Country giving up in order to have ovens? (You are looking for students to reach into the text and find that 10 acres of skybloom fields must be cleared to make room for the 5 ovens.)
- Why might it be difficult for the people of Brindlebrook Country to use and maintain ovens? (This question requires some critical thinking. The test mentions that farmers are going to have to retrain to operate and maintain the ovens. The text is unclear about the difficulties in running or maintaining the equipment or what other resources might be necessary to run or maintain the machinery.)
- Do you think that Brindlebrook Country's decision to produce both ovens and skybloom flakes will result in more or fewer Sphere-Sweet Treats in the economy? Why? (You are asking for a prediction here, so any answers are fine as long as there is valid reasoning.)

Hand out the second round of resources as follows, and have students fill out modified/simplified production possibilities chart on the back of their letters:

- Glintopolis
    - 10 ovens and 5 elderbloom fruits
    - First round: 20 ovens, 0 elderbloom fruits
    - Have many ovens has Glintopolis given up to produce each elderbloom fruit?
        - Divide the number of ovens by the number of elderbloom fruits.
        - The opportunity cost of each elderbloom fruit is 2 ovens.
        - The opportunity cost of each oven is 0.5 elderbloom fruits.
- Skydell Country
    - 10 elderbloom fruits, 5 copper cups
    - First round: 20 elderbloom fruits, 0 copper cups
    - How many elderbloom fruits has Skydell Country given up to produce each cup?
        - Divide the number of elderbloom fruits by the number of copper cups.
        - The opportunity cost of each copper cup is 2 elderbloom fruits.

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        - The opportunity cost of each elderbloom fruit is 0.5 copper cups.
- Scarlowe Country
    - 10 copper cups, 5 units of wheat
    - First round: 20 cups, 0 wheat
    - How many cups did Scarlowe Country give up for each unit of wheat?
        - Divide the number of cups by the number of units of wheat.
        - The opportunity cost of each unit of wheat is 2 cups.
        - The opportunity cost of each cup is 0.5 units of wheat.
- Aberria Country
    - 10 units of wheat, 5 skybloom flakes
    - First round: 20 units of wheat, 0 skybloom flakes
    - How many units of wheat did Aberria Country give up to produce each skybloom flake?
        - Divide the number of wheats by the number of skybloom flakes.
        - The opportunity cost of each skybloom flake is 2 wheats.
        - The opportunity cost of each unit of wheat is 0.5 skybloom flake.
- Brindlebrook Country
    - 10 skybloom flakes, 5 ovens
    - First round: 20 skybloom flakes, 0 ovens
    - How many skybloom flakes did Brindlebrook Country give up in order to produce each oven?
        - Divide the number of skybloom flakes by the number of ovens.
        - The opportunity cost of each oven is 2 skybloom flakes.
        - The opportunity cost of each skybloom flake is 0.5 ovens.

Run the simulation according to the same rules as the first round:

- Remind students that they have 10 minutes to trade to get all 5 resources to exchange them with Mr. Bakesmith, who will secretly have a total of 15 possible Sphere-Sweet Treats, as the total resources available will equal 15 of each resource.
- You may notice that just the mention in the letters of some mistrust will cause this round to be much more competitive. Let it! The likelihood is that their bickering will make them *less* productive.

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- At the end of 10 minutes, let only students who are currently in line and holding all 5 productive resources exchange these for the Sphere-Sweet Treats.

Debrief the simulation:

- Have each group write down how many Sphere-Sweet Treats they were able to produce.
- Total the number produced in the economy, which *should* be less than the total number produced in the first round. It is fine if this is not true.
- Share with the students that there were enough resources in the first round to generate a total of 20 possible Sphere-Sweet Treats while the second round had only enough available resources to produce 15 possible Sphere-Sweet Treats. If you had a student Mr. Bakesmith, this student can share this information.
- Have students answer the questions as follows.
    - How did the total number of possible Sphere-Sweet Treats change between the first and second rounds? Why? (You are looking for students to say that the total number of possible Sphere-Sweet Treats decreased between the first and second rounds, because there were fewer total available resources in the second round.)
    - Why were there fewer resources available in the second round? (You might want to have student groups share how many resources they had in the first round and how many resources they gave up to make a new resource. You may also want to openly discuss at this point that all of the groups experienced a similar situation in which there was a high opportunity cost for creating a new type of resource instead of the original resource. You want students to answer that every area of Spheradell gave up the resource they could produce efficiently for one they produced less efficiently.)
    - The concept of comparative advantage states that an economy should produce whatever it can produce at the lowest opportunity cost. This helps economies decide which goods and services they can most efficiently produce. Which resource could your country produce at a comparative advantage? Use the concept of opportunity cost to prove your answer. (This answer is going to be different for each group but should be consistent with whatever resource they were originally producing. For all countries, this resource costs half of the other resource.)
    - What does this simulation tell you about why people trade? (Answers may vary, but you are looking for the basic idea that people trade resources that they can overproduce for resources that others can produce more efficiently.)

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- Interdependence means that people in different economies rely on each other to efficiently produce goods and services. How did the 2 rounds of making Sphere-Sweet Treats relate to the interdependence of the different countries of Spheradell? (You are looking for students to say that even when each section started making multiple resources, the sections were still dependent on each other to produce the final product.)

## Exit Ticket

- Revisit the warm-up from the beginning of class. It is reprinted below:

Your economics teacher has introduced a group project due in 2 weeks that will require you to create groups to work on a project to conduct research, write a script, film a skit, and edit the video. You and your friends gather at a table to establish a group quickly. Your friend group consists of a student who is really good at research, a student who is a great writer and can perform basic video edits, and 2 students from the drama club who would be great at acting in and directing the video. The teacher notices that there is 1 student who is absent and will need a group when he returns. This student is an amazing film editor but doesn't work well with others. They're not really friends with anyone in your group, and they definitely don't fit in with your friends.

- What is the opportunity cost of including the absent student in your group? Remember that this is the next best option. It is what you give up in order to incorporate the student into your group. (Answers may vary here, but students might determine that the peaceful cooperation of the group or the relaxed and happy atmosphere of a group of all friends will be disrupted by the presence of this student.)
- What comparative advantage might the absent student offer the group in the creation of the group project? (Answers may vary here, but you are looking for students to identify that the absent student could edit the film, allowing your other film editor to focus on quality writing.)
- Is it economically worthwhile to include the absent student in your group? Why or why not? (Answers may vary, but after the simulation, hopefully students will conclude that the student's comparative advantage in video editing is worth the mild annoyance of including him in the group. Any answer is acceptable as long as the reasoning is valid and seeks to compare costs and benefits.)
- How does this group assignment relate to the concept of interdependence? (You are looking for students to say that in order to complete the project

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effectively and efficiently, all students in the group need to contribute their skills and abilities.)

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## Globalization Day 1 Comparative Advantage

### Warm Up

Your economics teacher has introduced a group project due in 2 weeks that will require you to create groups to work on a project to conduct research, write a script, film a skit, and edit the video. You and your friends gather at a table to establish a group quickly. Your friend group consists of a student who is really good at research, a student who is a great writer and can perform basic video edits, and 2 students from the drama club who would be great at acting in and directing the video. The teacher notices that there is 1 student who is absent and will need a group when he returns. This student is an amazing film editor but doesn't work well with others. They're not really friends with anyone in your group, and they definitely don't fit in with your friends. Would you and your friends offer to

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include this student in your group? Why or why not?

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## Globalization Day 1 Comparative Advantage

### Simulation

*Grand greetings, Spheradell citizens everywhere! Our illustrious wizard has appointed me as our new leader on account of my exceptional intellect! In celebration of this momentous occasion, I am directing all of Spheradell to throw public celebrations. Of course, the centerpiece of these celebrations will be our Sphere-Sweet Treats, as these tasty baked goods allow us to work together and highlight all that is good and abundant in the different parts of Spheradell! We will, of course, need wheat from the Aberria Country, the fruit of the elderbloom trees of Skydell Country, and the flakes of the skybloom flakes of Brindlebrook Country. After these ingredients are mixed, they will be poured into copper cups from Scarlowe Country and baked in the specialized ovens of Glintopolis! All areas of Spheradell are to produce and trade their resources to the best of their ability and take all 5 ingredients to Mr. Bakesmith of Spheradell, who will give you 1 Sphere-Sweet Treat for every set of resources you collect. Share the treats in your area in joyous celebration of the coronation of Strawkin the Elf!*

### Debrief Questions

Which resource did your country produce? How many resources did you produce?

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How was your group able to gather the resources necessary to create Sphere-Sweet Treats?

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Were all the resources used efficiently, or were some left over? If there are resources left over, how did that happen?

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How many Sphere-Sweet Treats was your group able to make and consume?

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How many Sphere-Sweet Treats was the class able to create in total?

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| | | | |
|---|---|---|---|
| Green Ovens | Green Ovens | Green Ovens | Green Ovens |
| Green Ovens | Green Ovens | Green Ovens | Green Ovens |
| Green Ovens | Green Ovens | Green Ovens | Green Ovens |
| Green Ovens | Green Ovens | Green Ovens | Green Ovens |
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| Green Ovens | Green Ovens | Green Ovens | Green Ovens |

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## Globalization Day 1 Comparative Advantage

### Simulation Round 2: Glintopolis

*Friends of Glintopolis, it has come to the attention of my very observant mind that the citizens of Skydell Country are not producing their resources nearly as effectively as possible. According to my careful calculations, I believe that Skydell Country is withholding the production of the fruit of the elderbloom tree. As such, I have ordered that elderbloom trees be planted here in the glorious Glintopolis under our beautiful metallic dome. To make space for the trees, we will have to remove 10 of our special ovens. Fortunately, our good friends in Brindlebrook Country have graciously offered to purchase 5 of these ovens. The profit from the sale will fully fund the planting of the trees. Many of our great workers will have to retrain to shift from running machinery to picking elderbloom fruit. My momentous brain knows that with the greatness of the workers of our city and the generous nature of our Glintopolis citizens, we will soon outproduce Skydell Country in elderbloom fruit!!*

*—Strawkin*

Why has Glintopolis decided to plant elderbloom trees?

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The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What is the opportunity cost of planting elderbloom trees?

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Why might elderbloom trees grow poorly in Glintopolis?

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Do you think that Glintopolis's shift to producing both elderbloom fruit and ovens will result in more or fewer Sphere-Sweet Treats in the economy? Why?

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Production possibilities: The idea of production possibilities captures the idea that an economy can choose to produce different resources. Use the chart below to capture the production possibilities of Glintopolis as reflected in the production choices they made in the first and second productive rounds. Use the chart below to record Glintopolis's production possibilities.

| Round | Ovens | Elderbloom fruit |
|---|---|---|
| Round 1 | | |
| Round 2 | | |

Opportunity cost: We can calculate the opportunity cost of each resource by determining how much of 1 resource is sacrificed to produce the other. In this case, divide the number of ovens that were given up by the number of elderbloom fruits that were gained in Round 2. The opportunity cost of each oven is the inverse of the opportunity cost of the elderbloom fruits.

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The opportunity cost of each elderbloom fruit is ____ ovens.

The opportunity cost of each oven is _____ elderbloom fruits.

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## Globalization Day 1 Comparative Advantage

### Simulation Round 2: Skydell Country

*Great citizens of Skydell Country, our most recent celebrations have uncovered a sinister truth about the metal producers of Scarlowe Country. The Scarlowes, under the command of my old friend, Gildron the knight, have been hoarding copper cups, reducing the number of copper cups available to the rest of us! Do not fear, great Skydellian people, for I have discovered metal under the elderbloom forest. We will immediately clear 10 acres of our forest to mine metal right here in our beautiful Skydell. It will take monumental courage to learn the new skills associated with metal mining and smithing, but I am certain that the brave people of Skydell are up to the challenge.*

*—Your King, Vaelor the Griffin*

Why has Skydell Country decided to forge copper cups?

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The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What will Skydell Country give up to mine and smith metal?

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Why might it be difficult for the Skydellians to mine and smith metal?

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Do you think that the Skydellians' decision to produce both elderbloom fruit and copper cups will result in more or fewer Sphere-Sweet Treats in the economy? Why?

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Production possibilities: The idea of production possibilities captures the idea that an economy can choose to produce different resources. Use the chart below to capture the production possibilities of Skydell Country as reflected in the production choices they made in the first and second productive rounds. Use the chart below to record Skydell Country production possibilities.

| Round | Elderbloom fruit | Copper cups |
|---|---|---|
| **Round 1** | | |
| **Round 2** | | |

Opportunity cost: We can calculate the opportunity cost of each resource by determining how much of 1 resource is sacrificed to produce the other. In this case, divide the number of elderbloom fruits that were given up by the number of copper cups that were gained in Round 2. The opportunity cost of each elderbloom fruit is the inverse of the opportunity cost of the copper cups.

The opportunity cost of each copper cup is ____ elderbloom fruits.

The opportunity cost of each elderbloom fruit is _____ copper cups.

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## Globalization Day 1 Comparative Advantage

### Simulation Round 2: Scarlowe Country

*My dearest friends of Scarlowe Country, it breaks my heart to tell you this, but I feel that the citizens of Aberria Country have been withholding wheat despite Strawkin's glorious proclamation to produce as much as they could. I love Scarlowe Country with all my heart, so I am working diligently with the labor unions to redirect many laborers from mining and smithing to farming! Half of our workforce will leave the mines and the forges to build beautiful farms right here in Scarlowe Country. I could cry just thinking about wheat waving in the wind along miles of terrace farms in our own backyard.*

*—With Love, Gildron*

Why has Scarlowe Country decided to grow wheat?

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The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What will Scarlowe Country give up in order to produce wheat?

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Why might it be difficult for the Scarlowe people to grow and harvest wheat?

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Do you think that Scarlowe Country's decision to produce both copper cups and wheat will result in more or fewer Sphere-Sweet Treats in the economy? Why?

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Production possibilities: The idea of production possibilities captures the idea that an economy can choose to produce different resources. Use the chart below to capture the production possibilities of Scarlowe Country as reflected in the production choices they made in the first and second productive rounds. Use the chart below to record Scarlowe Country production possibilities.

| Round | Copper cups | Wheat |
|---|---|---|
| **Round 1** | | |
| **Round 2** | | |

Opportunity cost: We can calculate the opportunity cost of each resource by determining how much of 1 resource is sacrificed to produce the other. In this case, divide the number of copper cups that were given up by the number of units of wheat that were gained in Round 2. The opportunity cost of each unit of wheat is the inverse of the opportunity cost of the copper cups.

The opportunity cost of each unit of wheat is ____ copper cups.

The opportunity cost of each copper cup is _____ units of wheat.

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## Globalization Day 1 Comparative Advantage

### Simulation Round 2: Aberria Country

*Good people of Aberria Country, the recent celebration of our friend Strawkin has uncovered corruption out west! Our former friends in Brindlebrook Country have been greedily keeping precious skybloom flakes for themselves. This is not very nice, but I have a very good plan for protecting our access to Sphere-Sweet Treats. The citizens of Aberria Country will now grow our own skybloom flakes! We are sure to be very good at producing skybloom flakes, so I have ordered 10 acres of wheat cleared so that skyblooms can be planted. Our farmers are currently training in skybloom care, maintenance, and harvesting techniques.*

*—Good day, Liora, Fairy Queen*

Why has Aberria Country decided to grow skyblooms?

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The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What will the people of Aberria Country give up in order to grow skyblooms?

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Do you think that Aberria Country's decision to produce both wheat and skybloom flakes will result in more or fewer Sphere-Sweet Treats in the economy? Why?

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Production possibilities: The idea of production possibilities captures the idea that an economy can choose to produce different resources. Use the chart below to capture the production possibilities of Aberria Country as reflected in the production choices they made in the first and second productive rounds. Use the chart below to record Aberria Country production possibilities.

| Round | Wheat | Skybloom flakes |
|---|---|---|
| **Round 1** | | |
| **Round 2** | | |

Opportunity cost: We can calculate the opportunity cost of each resource by determining how much of 1 resource is sacrificed to produce the other. In this case, divide the number of units of wheat that were given up by the number of skybloom flakes that were gained in Round 2. The opportunity cost of each unit of wheat is the inverse of the opportunity cost of the skybloom flakes.

The opportunity cost of each skybloom flake is ____ units of wheat.

The opportunity cost of each unit of wheat is _____ skybloom flakes.

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## Globalization Day 1 Comparative Advantage

### Simulation Round 2: Brindlebrook Country

*Merry men and maidens of Brindlebrook Country, as your mayor, I am much aggrieved! As owners of the most precious capital in all of Spheradell, Glintopolis has been able to control Sphere-Sweet Treat production! We, the Democratic people of Brindlebrook Country, must demand that we control the capital necessary to bake our magnificent Sphere-Sweet Treats! We have outsmarted Strawkin by buying 5 ovens from Glintopolis. To make room for these ovens, we must clear 10 acres of skybloom fields and retrain some of our skybloom farmers. Make merry, Brindlebrook! Our skybloom flake production has never had a peer! Surely we will soon have more Sphere-Sweet Treats than ever!*

*—Magnificently, your mayor*

Why has Brindlebrook Country decided to buy ovens from Glintopolis?

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The concept of opportunity cost is about what someone gives up in exchange for something else. It is the next best option. What are the people of Brindlebrook Country giving up in order to have ovens?

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Why might it be difficult for the people of Brindlebrook Country to use and maintain ovens?

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Why might it be difficult for the people of Brindlebrook Country to use and maintain ovens?

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Production possibilities: The idea of production possibilities captures the idea that an economy can choose to produce different resources. Use the chart below to capture the production possibilities of Brindlebrook Country as reflected in the production choices they made in the first and second productive rounds. Use the chart below to record Brindlebrook Country production possibilities.

| Round | Skybloom flakes | Ovens |
|---|---|---|
| **Round 1** | | |
| **Round 2** | | |

Opportunity cost: We can calculate the opportunity cost of each resource by determining how much of 1 resource is sacrificed to produce the other. In this case, divide the number of skybloom flakes that were given up by the number of ovens that were gained in Round 2. The opportunity cost of each skybloom flake is the inverse of the opportunity cost of the oven.

The opportunity cost of each oven is ____ skybloom flakes.

The opportunity cost of each skybloom flake is _____ ovens.

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## Globalization Day 1 Comparative Advantage

### Lesson Debrief

How did the total number of possible Sphere-Sweet Treats change between the first and second rounds? Why?

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Why were there fewer resources available in the second round?

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The concept of comparative advantage states that an economy should produce whatever it can at the lowest opportunity cost. This helps economies decide which goods and services they can most efficiently produce. Which resource could your country produce at a comparative advantage? Use the concept of opportunity cost to prove your answer.

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What does this simulation tell you about why people trade?

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Interdependence means that people in different economies rely on each other to efficiently produce goods and services. How did the two rounds of making Sphere-Sweet Treats relate to the interdependence of the different areas of Spheradell?

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## Globalization Day 1 Comparative Advantage

### Exit Ticket

Revisit the warm-up from the beginning of class:

> Your economics teacher has introduced a group project due in 2 weeks that will require you to create groups to work on a project to conduct research, write a script, film a skit, and edit the video. You and your friends gather at a table to establish a group quickly. Your friend group consists of a student who is really good at research, a student who is a great writer and can perform basic video edits, and 2 students from the drama club who would be great at acting in and directing the video. The teacher notices that there is 1 student who is absent and will need a group when he returns. This student is an amazing film editor but doesn't work well with others. They're not really friends with anyone in your group, and they definitely don't fit in with your friends.

What is the opportunity cost of including the absent student in your group? Remember that this is the next best option. It is what you give up in order to incorporate the student into your group.

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What comparative advantage might the absent student offer the group in the creation of the group project?

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Is it economically worthwhile to include the absent student in your group? Why or why not?

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How does this group assignment relate to the concept of interdependence?

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