

ECONOMICS MODULE



DAY 2:
WHAT FACTORS OF PRODUCTION
INFLUENCE THE SOUTH KOREAN
ECONOMY?

ECONOMICS MODULE OVERVIEW

SKILL FOCUS

Analyze Data and Support Arguments with Evidence

CONTENT

Comparative Advantage and Factors of Economic Production

Why do Countries Specialize?

DAY 1

CLASS ACTIVITY

Understanding the Concepts of Opportunity Cost, Absolute Advantage, and Comparative Advantage

This module leads students through the costs and benefits of economic decision making as students work through four activities and complete an exit ticket demonstrating their knowledge. They will examine decision making and opportunity costs through an individual lens and then be introduced to the concepts of opportunity cost, absolute advantage, and comparative advantage at different scales as well as determining how these factors lead to specialization.

CHECK FOR UNDERSTANDING

Student Discussion: How do the concepts of opportunity costs and comparative advantage explain why countries specialize in what they produce?

What Factors of Production Have Influenced the Rapid Growth and Success of South Korea's Economy?

DAY 2

CLASS ACTIVITY

Identifying the Importance of Different Factors of Production in the South Korean Economy

In this activity, students will explore the factors of production and will apply their understanding by categorizing different examples. Students will use their knowledge of factors of production to identify which factor of production they believe to be most important to South Korea's economy.

CHECK FOR UNDERSTANDING

Exit Ticket: Which factor of production do you believe is most important to South Korea's economy?

Assessment

DAY 3

CLASS ACTIVITY

Short Answer Writing

Students will review Day 1 and Day 2 activities and read about opportunity costs, comparative advantage, and factors of production to evaluate how these elements have led to the South Korean economic miracle.

The Influence of Factors of Production and Comparative Advantages on Korea's Economic Development

Short Answer Prompt: Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.

ECONOMICS MODULE SOURCES

DAY 1	Stimulus Type	Description	Page
	Graph	Vehicle Production in South Korea, 2010-2019	164
	Graph	Yearly Number of Cars Produced in the United Kingdom, 2013-2019	164

DAY 2	Stimulus Type	Description	Page
	Podcast	Homework Overview: Identifying Factors Of Production	187
	Photo	Hyundai Santa Fe	187
	Photo	Textile Manufacturing Equipment	189
	Chart	Education, Wages, and Labor Productivity in South Korea and China	189
	Photo	Hyundai Car Assembly Line in Ulsan, South Korea	190
	Map	Topography of South Korea	190
	Map	Full-Time Farm Households as a Percentage of Households in South Korea	190
	Text Excerpt	Hyundai Corporation	191
	Chart	Land Use and National Resources in South Korea and China	191
	Chart	South Korean and Chinese Workforce by Sector	192
	Photo	Pohang Iron and Steel Company, South Korea	192
	Text Excerpt	Samsung Electronics Company	193

DAY 3	Stimulus Type	Description	Page
	Article	The South Korean Economic Miracle	214
	Graph	South Korean GDP per capita, 1960-2021	214
	Graph	South Korean Exports, 1960-2019	214
	Graph	The Share of the Population with No Formal Education in Different Countries	214

DAY 2

BASED ON A 60-MINUTE CLASS

What Factors of Production Influence the South Korean Economy?

OVERVIEW

This lesson introduces the concept of factors of production and builds on the ideas of opportunity costs as well as absolute and comparative advantage. By examining how the factors of production can influence economic decisions, students will understand economic decision making in better detail. They will analyze sources and rank which factor they believe to be most influential. Applying their understanding of the factors, students will sort examples from South Korea into the categories of land, labor, capital, and entrepreneurship. After selecting an example for each of the four factors, students will explain their rationale and how that factor would impact the South Korean economy. Students will revisit their rankings from the first activity of this lesson to see if their rankings and importance of each factor have changed.

MATERIALS NEEDED:

HOMEWORK

- ▶ Handout: What are Factors of Production? (p. 187)
- ▶ Factors of Production Podcast (p. 187)

IN-CLASS ACTIVITIES

- ▶ Activity 2: Factors of Production Case Study: Korea Practice Card (p. 189)
- ▶ Activity 2: Factors of Production: Korea Case Study Cards (1 set per groups of 2 or three students)
 - ▷ Factors of Production Case Study: Korea Card 1 (p. 189)
 - ▷ Factors of Production Case Study: Korea Card 2 (p. 190)
 - ▷ Factors of Production Case Study: Korea Card 3 (p. 190)
 - ▷ Factors of Production Case Study: Korea Card 4 (p. 191)
 - ▷ Factors of Production Case Study: Korea Card 5 (p. 191)

- ▷ Factors of Production Case Study: Korea Card 6 (p. 192)
- ▷ Factors of Production Case Study: Korea Card 7 (p. 192)
- ▷ Factors of Production Case Study: Korea Card 8 (p. 193)

- ▶ Activity 2 Handout: Factors of Production/ Card Sort Analysis (p. 194)
- ▶ Activity 3 Exit Ticket: Factors of Production (p. 197)

TEACHER ANSWER KEYS

- ▶ Homework Handout: What are Factors of Production? (p. 198)
- ▶ Activity 2 Handout: Factors of Production/ Card Sort Analysis (p. 200)
- ▶ Activity 3 Exit Ticket: Factors of Production (p. 203)

SEQUENCE OF INSTRUCTION

HOMEWORK OVERVIEW: IDENTIFYING FACTORS OF PRODUCTION

HOMEWORK (30 MINUTES)

Students will listen to a podcast from the Federal Reserve Bank of St. Louis at <https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-2-factors-of-production> to identify the four factors of production and to identify examples of each factor.

ACTIVITY PROCEDURE

- ▶ Provide students either a copy of or digital access to the Homework Handout, “What Are Factors of Production?”
- ▶ Students will do the following homework:
 - ▷ Individually, students will complete the Brainstorming section of the homework handout by predicting who and what is involved in the production of an automobile as well as thinking about where it would occur.
 - ▷ Next students will listen to the Factors of Production podcast (total length 6:19) from the Federal Reserve Bank of St. Louis to identify that land, labor, capital, and entrepreneurship are the factors of production. In the section on “What are Factors of Production?” in their homework handout, students will identify, describe, and provide examples of the four factors of production (Land, Labor, Capital, and Entrepreneurship).
 - ▷ Finally, students will then rank the four factors based on what they believe is the most important in the production of an automobile (or any other product) and will include a brief justification for their ranking. Students will discuss their ranking and rationale in the next activity.

For suggested answers, see the Teacher Key to the Homework Handout, “What Are Factors of Production?” (p. 198)

TEACHER NOTES

The link to the Factors of Production podcast also has a transcript under the listening bar which could be helpful for students who may struggle with auditory learning. Students can use the transcript to highlight key information as they listen.



TEACHING TIP

When students are ranking items such as those in the homework, it is beneficial for you to let students know that there is no single correct answer and that the justification of their ranking is more important than the actual ranking.

CLASS ACTIVITY 1 OF 3: RANKING THE FACTORS OF PRODUCTION

WARM UP/INTRODUCTION (15 MINUTES)

RANKING AND JUSTIFICATION

ACTIVITY PROCEDURE

- ▶ Group students in groups of three or four:
- ▶ Review with them that the factors of production include the following information. Have students add information that they did not identify from their homework.
 - ▷ Land: Includes land regardless of use, but also includes any natural resource that comes from the land.
 - ▷ Labor: Labor is the effort put into a product or service and includes the size, skill, and relative cost of the labor force.
 - ▷ Capital: Capital usually includes money, but in this case capital consists of the machinery and tools needed to produce goods and services.
 - ▷ Entrepreneurship: Refers to the people/organizations/companies that combine with the other factors of production to earn a profit.
- ▶ Each student will share with their group their rankings and justifications from their homework on the Handout, What are Factors of Production?
 - ▷ Students can use the following sentence stems to help guide their discussions.
 - The least important factor is . . .
 - The most important factor is . . .
 - I think . . . is the most important factor because . . .
 - I think . . . is the least important factor because . . .
- ▶ Next, groups will rank the factors their group believes to be most important.
- ▶ Groups will then develop a justification statement for their ranking.
- ▶ After groups have prepared their justification each group will share its ranking with the class.

For suggested answers, see the Teacher Key to the Homework Handout, "What Are Factors of Production?" (p. 198)

TEACHER NOTES

If factors of production have already been taught, consider skipping to Activity 2 or review the Homework Handout, "What Are Factors of Production?"

Students who may not have completed the homework should listen to the Factors of Production podcast, and complete the "What are Factors of Production?" section of their Handout, while groups discuss their ranking.



TEACHING TIP

Giving students the opportunity to justify their thoughts and to discuss them with other students increases understanding and allows for the practice of important skills.

CLASS ACTIVITY 2 OF 3: FACTORS OF PRODUCTION CARD SORT

CLASS ACTIVITY (30 MINUTES)

CARD SORT AND JUSTIFICATION

ACTIVITY PROCEDURE

- ▶ Divide the previous groups into groups of two or three so all students have an opportunity to be part of the decision making process.
- ▶ Give each student the Handout on Factors of Production/Card Sort Analysis (p. 194).
- ▶ First model the expectations of what students will be doing in this activity:
 - ▷ Project the Practice Card: Korea Case Study, and have groups discuss which factor of production is being shown.
 - ▷ This card provides an example of capital because it shows the machinery needed for production.
 - ▷ Show students the first row of their handout, which features the card on textile equipment manufacturing, and have them put a check in the capital box under the heading "Which of the Four Factors of Production?"
- ▶ Next have each group of students sort the cards into Land, Labor, Capital, and Entrepreneurship:
 - ▷ Factors of Production Case Study: Korea Card 1
 - ▷ Factors of Production Case Study: Korea Card 2
 - ▷ Factors of Production Case Study: Korea Card 3
 - ▷ Factors of Production Case Study: Korea Card 4
 - ▷ Factors of Production Case Study: Korea Card 5
 - ▷ Factors of Production Case Study: Korea Card 6
 - ▷ Factors of Production Case Study: Korea Card 7
 - ▷ Factors of Production Case Study: Korea Card 8
- ▶ Check the answers of the groups (see the Teacher Key for the Handout on Factors of Production/Card Sort Analysis, p. 200).
 - ▷ Inform groups which cards have not been sorted accurately and allow the students to resort until they are correct.
- ▶ Students will remain in the same groups.
 - ▷ Using the Practice Card: Korea Case Study, and the second page of the Handout on Factors of Production/Card Sort Analysis, model how students will analyze the cards representing factors of production and guide students through completing the sample card analysis chart.
 - ▷ Have groups work together to analyze the example cards from the sorting activity to complete the rest of their Handout on Factors of Production/Card Sort Analysis.

► Student Discussion

- ▷ Based on the Factors of Production cards, groups will discuss how the cards would help describe the focus of the South Korean economy. Groups will provide a justification for their answer.
- ▷ Give students time to formulate their own answer before they share with their group using the space provided on their Handout on Factors of Production/Card Sort Analysis.
 - Sentence stem: I believe South Korea's economy is focused on the production of . . . because . . .

For suggested answers, see the Teacher Key to the Handout on Factors of Production/Card Sort Analysis (p. 200).

TEACHER NOTES

Depending on the time allocated for this concept, you can shorten Activity 2 by having students only describe and justify one card for each of the factors of production.

Remind students of what they learned about South Korea's economy from the Day 1 activities to help guide struggling students or groups.



TEACHING TIP

Sorting and other hands-on activities help students to practice using concepts and offer a quick visual opportunity for teachers to see if students understand.

CLASS ACTIVITY 3 OF 3: CHECK FOR UNDERSTANDING

CLASS ACTIVITY (15 MINUTES)

EXIT TICKET

ACTIVITY PROCEDURE

- Give the Factors of Production Exit Ticket to each student.
- Individually, have students revisit their rankings from Activity 1 and determine their ranking of the factors based on which factors they think most impact the South Korean Economy.
- Students will explain if there was a change to their ranking from Activity 1 and why or why not.
- Using the factor that students believe is the most impactful for South Korea's economy, students will justify why they believe this to be the most important factor and why.

For suggested answers, see the Teacher Key to the Factors of Production Exit Ticket (p. 203).

HANDOUT: WHAT ARE FACTORS OF PRODUCTION?

Name: _____ Period: _____

Follow the directions below:

Brainstorm: Look at the picture of the automobile and complete the chart below identifying the elements needed for the production of the car in the space below.

PHOTO
Hyundai Santa Fe



Who is involved in production?	
What is involved in production?	
Where is this production taking place?	

What are Factors of Production? Listen to the Factors of Production Podcast from the Federal Reserve Bank of St. Louis at <https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-2-factors-of-production> and complete the chart below.

Factor of Production	Description	Example

Rank the four factors of production from most important to least important. Consider which is most important in the production of a car. (This is an opinion; there are no right or wrong answers.)

	Factor of Production
1	
2	
3	
4	

Provide a justification of your rankings in a sentence in the space below.

STOP INDIVIDUAL HOMEWORK NOW.

GROUP DISCUSSION

Share your ranking and justification with your group.

Sentence Stems to help with your conversation:

- ▶ The least important factor I believe to be . . .
- ▶ The most important factor I believe to be . . .
- ▶ I think . . . is the most important factor because . . .
- ▶ I think . . . is the least important factor because . . .

As a group, rank the factors.


	Factor of Production
1	
2	
3	
4	

Provide a justification of your group rankings in a sentence in the space below.

FACTORS OF PRODUCTION CASE STUDY: KOREA PRACTICE CARD

PHOTO

Textile Manufacturing Equipment



FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 1

CHART

Education, Wages, and Labor Productivity in South Korea and China

Source: World History Digital Education Foundation, 2020.

Country	Mean Years of Schooling Attained*	Wages in US Dollars	Productivity per Hour in US Dollars
China	7.9	\$3.60 (average)	\$15.00
South Korea	12.2	\$7.30 (minimum wage)	\$34.30

* The average number of completed years of education of the country's population 25 or older.

FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 2

Hyundai Car Assembly Line in Ulsan, South Korea

Source: Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Hyundai_car_assembly_line.jpg

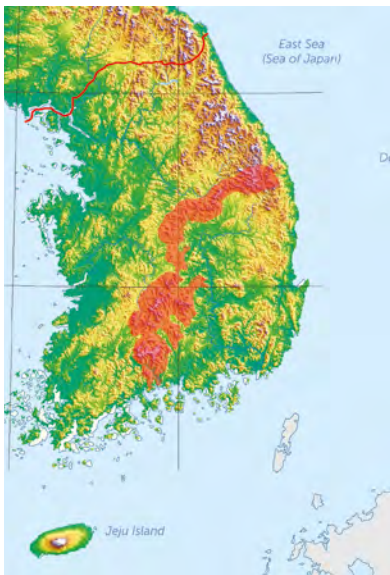


FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 3

MAP

Topography of South Korea

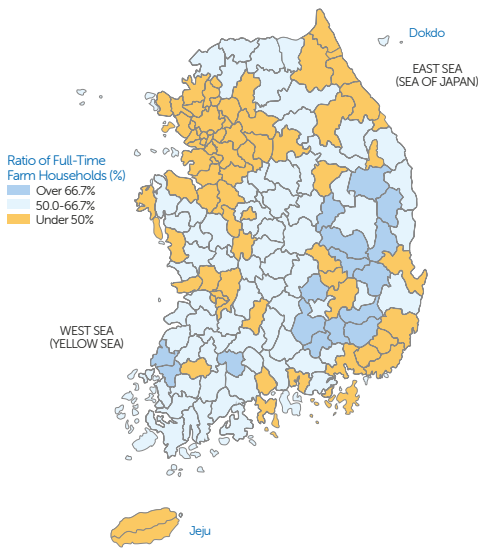
Source: Wikimedia Commons. <https://commons.wikimedia.org/w/index.php?curid=5196542>



MAP

Full-Time Farm Households as a Percentage of Households in South Korea

Source: National Atlas of Korea, <http://www.nationalatlas.ngii.go.kr/us>



FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 4

TEXT EXCERPT

Hyundai Corporation

Source: World History Digital Education Foundation, 2020

Hyundai Corporation is a major South Korean and global corporation. Formed in 1976, its operations encompass the production of chemicals, ships, machines, plants, steel, and electronic products as well as the production of cars, with which Americans are most familiar. Hyundai's investments in the South Korean economy and global economy are powerful reminders of its impact and influence.

FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 5

CHART

Land Use and National Resources in South Korea and China

Source: CIA World Factbook, <https://www.cia.gov/the-world-factbook/>

	South Korea	China
Land used for agriculture	18.1% of total land	54.7%
Forest	63.9%	22.3%
Coastline	2,413 km	14,500 km
Natural Resources	Coal, tungsten, graphite, lead, hydropower potential	Coal, iron ore, helium, petroleum, natural gas, arsenic, bismuth, cobalt, cadmium, ferrosilicon, gallium, germanium, hafnium, indium, lithium, mercury, tantalum, tellurium, tin, titanium, tungsten, antimony, manganese, magnesium, molybdenum, selenium, strontium, vanadium, magnetite, aluminum, lead, zinc, rare earth elements, uranium, hydropower potential.

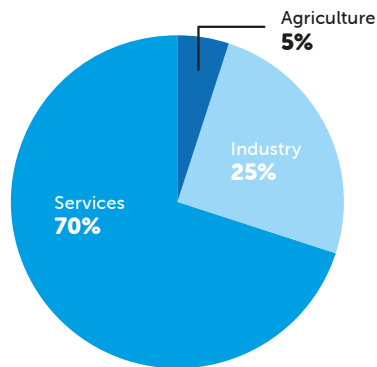
FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 6

CHART

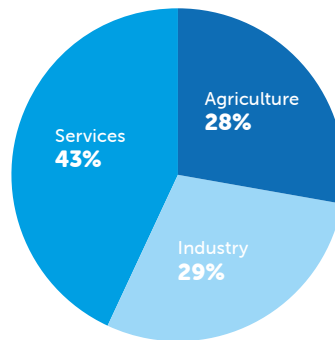
South Korean and Chinese Workforce by Sector

Source: CIA World Factbook, <https://www.cia.gov/the-world-factbook/>

South Korea Workforce by Sector



China Workforce by Sector



Agriculture includes farming, fishing, and forestry.

Industry includes mining, manufacturing, energy production, and construction.

Services include governmental activities, communications, transportation, finance, and all other private economic activities that do not produce material goods.

FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 7

PHOTO

Pohang Iron and Steel Company, South Korea



FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 8

TEXT EXCERPT

Samsung Electronics Company


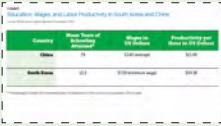



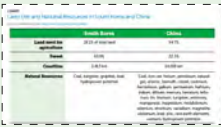



Source: World History Digital Education Foundation, 2020

Samsung is one of the world's largest producers of consumer electronics and it has played an integral role in the South Korean and global economy over the last 50 years. Its products are very diverse, focusing on producing consumer electronics such as home appliances as well as equipment that benefits health and medical providers. The mobile communication side of the business is also very impactful and includes the production of some of the most popular and innovative smartphones on the market as well as the development of an infrastructure for next-generation networking.

HANDOUT: FACTORS OF PRODUCTION/CARD SORT ANALYSIS

Name: _____ Period: _____

Card Sort. After you have sorted and checked with your teacher for accuracy, identify which factor of production is shown in the card by putting a check in the appropriate box.

Card	Which of the Four Factors of Production?			
	Land	Labor	Capital	Entrepreneurship
Example 				
1 				
2 				
3 				
4 				
5 				
6 				
7 				
8 				

ANALYZING FACTORS OF PRODUCTION CARDS

PRACTICE CARD ANALYSIS

Card	Factors of Production Case Study: Korea Practice Card
Describe the information shown in the card	
Justify why this is an example of Capital	

Use the Korea Case Study Cards to complete the charts below.

	Land	
Card		
Describe the information shown in the card		
Justify why this is an example of Land		

	Labor	
Card		
Describe the information shown in the card		
Justify why this is an example of Labor		

Continued on the next page

Capital		
Card		
Describe the information shown in the card		
Justify why this is an example of Capital		

Entrepreneurship		
Card		
Describe the information shown in the card		
Justify why this is an example of Entrepreneurship		

STUDENT DISCUSSION

Looking at the factors of production, how would you describe the focus of the South Korean economy? How do factors of production justify your answer?

Use this space to write your answer before you discuss it with your group.

► Sentence stem: I believe South Korea's economy is focused on the production of . . . because . . .

EXIT TICKET: FACTORS OF PRODUCTION

Name: _____ Period: _____

Based on your learning today and looking at examples from South Korea, re-rank the four factors of production (land, labor, capital, and entrepreneurship) based on how you believe they impact the South Korean economy.

Factor of Production	
1	
2	
3	
4	

Did your rankings change from Activity 1? (why/why not?)

Write a short paragraph identifying which factor of production you believe to be the most important to South Korea's economy and why?

TEACHER KEY: HANDOUT OF “WHAT ARE FACTORS OF PRODUCTION?”

Brainstorm: Look at the picture of the automobile and complete the chart below identifying the elements needed for the production of the car in the space below.

PHOTO

Hyundai Santa Fe



Who is involved in production?	
What is involved in production?	
Where is this production taking place?	

What are Factors of Production? Listen to the Factors of Production Podcast from the Federal Reserve Bank of St. Louis and complete the chart below.

Factor of Production	Description	Example
Land	Includes natural resources used to produce goods and services. This includes not just land, but anything that comes from the land.	Land, water, oil, copper, natural gas, coal, and forests.
Labor	The effort that people contribute to the production of goods and services.	Engineers, waiters, etc.
Capital	Think of capital as the machinery, tools and buildings humans use to produce goods and services.	Hammers, forklifts, conveyor belts, computers, and delivery vans.
Entrepreneurship	An entrepreneur is a person who combines the other factors of production to earn a profit.	Henry Ford, Bill Gates, Michael Dell.

Rank the four factors of production from most important to least important. Consider which is most important in the production of a car. (This is an opinion; there are no right or wrong answers.)

Factor of Production	
1	
2	
3	
4	

Provide a justification of your rankings in a sentence in the space below.

GROUP DISCUSSION

Share your ranking and justification with your group.

Sentence Stems to help with your conversation:

- ▶ The least important factor is . . .
- ▶ The most important factor is . . .
- ▶ I think . . . is the most important factor because . . .
- ▶ I think . . . is the least important factor because . . .


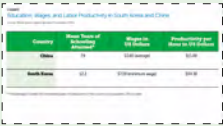



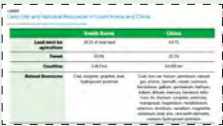



As a group, rank the factors.

Factor of Production	
1	
2	
3	
4	

Provide a justification of your group rankings in a sentence in the space below.

TEACHER KEY: HANDOUT ON FACTORS OF PRODUCTION/CARD SORT ANALYSIS

Card Sort. After you have sorted and checked with your teacher for accuracy, identify which factor of production is shown in the card by putting a check in the appropriate box.

Card	Which of the Four Factors of Production?			
	Land	Labor	Capital	Entrepreneurship
Example 			✓	
1 		✓		
2 			✓	
3 	✓			
4 				✓
5 	✓			
6 		✓		
7 			✓	
8 				✓

ANALYZING FACTORS OF PRODUCTION CARDS

PRACTICE CARD ANALYSIS

Card	Factors of Production Case Study: Korea Practice Card
Describe the information shown in the card	Machinery for producing textiles
Justify why this is an example of Capital	Machinery used for producing a good is part of the capital category

Use the Korea Case Study Cards to complete the charts below.

Land		
Card	3	5
Describe the information shown in the card	The topographic map shows the different elevations found on the Korean Peninsula. The Full-time Farm Households map shows which areas in South Korea have the most farmers.	Land use is compared between South Korea and China, showing that China has much more land used for agriculture, but fewer forests than South Korea. Both have large coastlines, with China having a larger coastline. Both have many resources.
Justify why this is an example of Land	These maps show the type of land found in South Korea and how the land is used based on the percent of full-time farm households.	This is an example of land because it shows amounts of agricultural land, forest, coastline, and natural resources, which come from the land.

Labor		
Card	1	6
Describe the information shown in the card	The card shows that South Korean workers attend school for longer, earn more, and are more productive than Chinese workers.	The graphs show the breakdown of South Korea and Chinese workforce by sector. China has a larger percent of agriculture workers and South Korea has a larger percent of service workers.
Justify why this is an example of Labor	This is an example of labor because it shows the qualities of workers.	This is an example of labor because it shows the percent of workers in both countries divided by economic categories.

Capital		
Card	2	7
Describe the information shown in the card	The card shows a car factory in South Korea manufacturing automobiles.	The card shows a factory of the Pohan Iron and Steel Company.
Justify why this is an example of Capital	This card is an example of capital because it shows the machines in a factory needed to produce a good.	This card is an example of capital because it shows a factory that produces iron and steel.

Entrepreneurship		
Card	4	8
Describe the information shown in the card	The card describes the Hyundai Corporation and explains what it produces and that it trades globally.	The card explains what Samsung produces and its role in the global economy.
Justify why this is an example of Entrepreneurship	This card is an example of entrepreneurship because it explains how Hyundai Corporation puts the factors of production together to make a product.	This card is an example of entrepreneurship because it explains how Samsung Corporation puts the factors of production together to make a product.

STUDENT DISCUSSION

Looking at the factors of production, how would you describe the focus of the South Korean economy? How do factors of production justify your answer?

Use this space to write your answer before you discuss it with your group.

-
- Sentence stem: I believe South Korea's economy is focused on the production of . . . because . . .

TEACHER KEY FOR THE EXIT TICKET: FACTORS OF PRODUCTION

Based on your learning today and looking at examples from South Korea, re-rank the four factors of production (land, labor, capital, and entrepreneurship) based on how you believe they impact the South Korean economy.

Factor of Production	
1	
2	
3	
4	

Did your rankings change from Activity 1? (why/why not?)

Write a short paragraph identifying which factor of production you believe to be the most important to South Korea's economy and why?

Possible Answers:

Land. Most students will not say that land is the most influential. If land is mentioned, students should discuss the resources found in South Korea.

Labor. Students who pick labor may mention the educated workforce, high levels of productivity, large numbers of workers in services and industry, few workers in agriculture, etc.

Capital. South Korea has large factories that produce many products, including consumer electronics, automobiles, and even steel, which is used in the manufacturing of many products sold globally.

Entrepreneurship. South Korea has many large companies, such as Hyundai and Samsung, which are able to bring all of the elements of production together, making production more efficient and leading to South Korea's strong role in the global economy.

