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AUTHOR Day, Harlan R.

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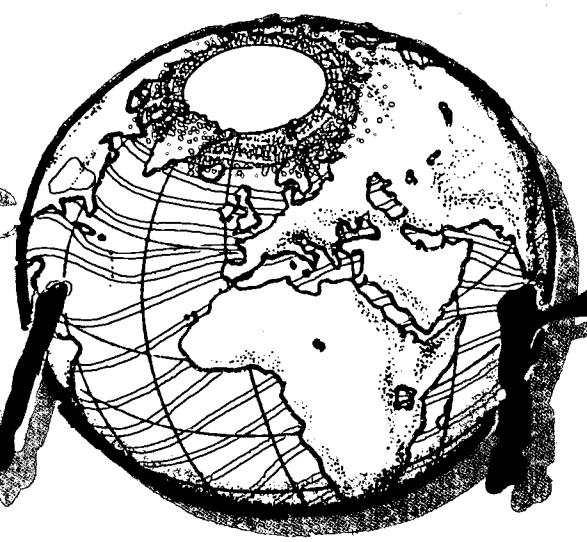
ABSTRACT

This booklet is to help Indiana middle school teachers fill the gap in economics education in their curriculum by supplementing world geography and world history courses. The booklet is composed of five different teaching units: (1) "Economic Survival: Resources, Production, and Scarcity"; (2) "Working and Living Together: The Importance of Trade"; (3) "Gross Domestic Product: Measuring the Income of Nations"; (4) "Productivity: The Key to Increasing the Wealth of Nations"; and (5) "Economic Systems: How Nations Organize Their Economies." Each unit is composed of a basic teaching instruction section to explain economic concepts, student handouts, worksheet with questions to master, and a group activity that reinforces the concepts introduced. Individual projects comprise a final part of the unit with students applying the knowledge gained in the earlier sections. Teachers also can use the mastery test on unit concepts to evaluate students. (EH)

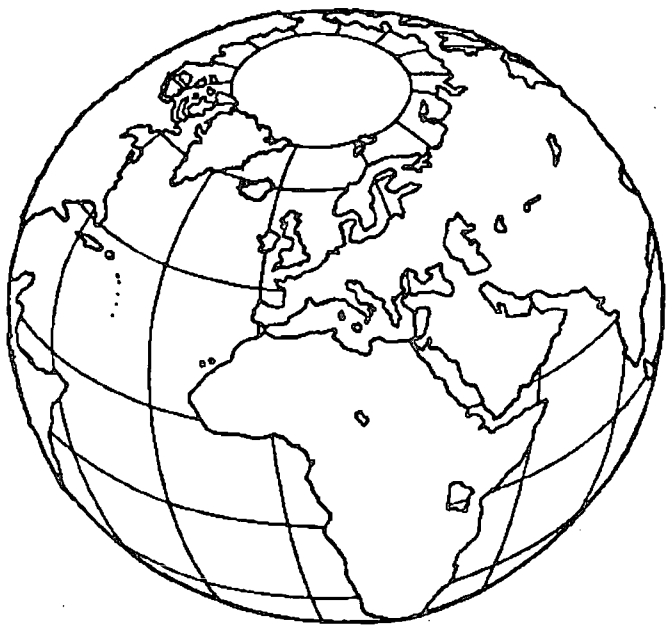
Trading around the World



Introducing Economics into the Middle School Curriculum

TRADING AROUND THE WORLD

Introducing Economics Into the Middle School Curriculum



Written by

Harlan R. Day, Ph.D
Economic Education Consultant

INDIANA DEPARTMENT OF EDUCATION
Center for School Improvement and Performance
Office of School Assistance

1993

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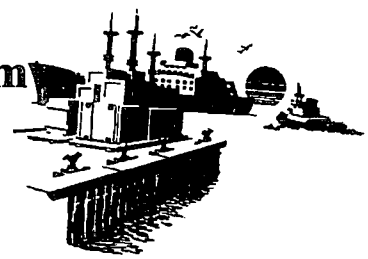
Trading Around the World

Introducing Economics Into the Middle School Curriculum



Introduction

The Importance of Trade

It is hard to overestimate the importance of trade in today's world. Your students wear clothing produced in Singapore. They wear shoes produced in Korea or Brazil. They watch televisions made in Japan. They eat food produced in Central America.

Similarly, people in other countries use the products that your students' parents produce. People in these countries buy our computers, our grain, our chemicals, and our tractors. The world would be much different, and much poorer, without trade.

Almost certainly, international trade will grow even more important as our world "shrinks" because of breathtaking advances in communication and transportation technology. In today's world, our students simply cannot afford to be ignorant of this important subject.

Sadly, the topic of trade, and economics in general, is much neglected in the middle school social studies curriculum, especially in Grades 6 and 7. In these grades, Indiana students typically study the geography and history of various parts of the world. The textbooks usually mention trade and other related economic concepts, however, the coverage is very shallow and fragmented. Students leaving these courses lack even a rudimentary understanding of economics.

This booklet will help teachers fill this gap in the curriculum. It is designed to supplement the existing world geography and world history courses. This may sound overwhelming to the dedicated teacher who already has far too much material to cover. However, we firmly believe that using the teaching units in this booklet will give your students a much more complete understanding of the countries that *are* studied in your geography and world history courses. Understanding the basic economic concepts presented in this booklet will greatly enrich the rest of the curriculum that you present to your students. In short, it will be worth your time to use these teaching units.

Teaching Philosophy and Instructional Design

Economics traditionally has been known as the "dismal science." And for those who have suffered through a sometimes "dismal" college economics course, this description of economics probably seems accurate. However, we believe that the instructional design and the creative teaching activities of these lessons will make economics come alive for your students.

This booklet is composed of five different teaching units:

Unit 1: Economic Survival: Resources, Production, and Scarcity

Unit 2: Working and Living Together: The Importance of Trade

Unit 3: Gross Domestic Product: Measuring the Income of Nations

Unit 4: Productivity: The Key To Increasing the Wealth of Nations

Unit 5: Economic Systems: How Nations Organize Their Economies

Each unit, in turn, is composed of three different parts.[1] The first part is the Basic Instruction (BI). After reading several pages of text explaining the economic concepts, and after receiving additional instruction from you using other appropriate teaching materials, students complete the **Questions to Master** worksheet. Discuss the answers with your students, clarifying any difficult concepts.

Next, the students are ready for the Group Activity (GA). The group activity reinforces the concepts introduced in the Basic Instruction. The activities are not difficult, and are interesting enough to encourage all students to participate. Rotate the jobs of group leader and group recorder so that all students can gain this experience. To encourage participation, you may want to require each student in the group to be a "recorder" and complete the Group Response Sheets.

The final part of the unit is the Individual Project (IP). In this part, students must apply the knowledge learned in the Basic Instruction and the Group Activity. Students must work independently, sometimes using outside resources. Teachers probably will want to use the IP in students' evaluations, since the IP reflects how well students have learned the concepts introduced in the unit. Teachers can also use the Mastery Test on Unit Concepts to evaluate students.

In summary, these lessons contain many pedagogical features that make them effective in the classroom: stressing of basic concepts, group learning, creative teaching activities, emphasis on higher level thinking skills, and an emphasis on independent learning using outside resources. We are confident that using these lessons will result in a more interesting and worthwhile curriculum.

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1 The design of these units is based on the instructional model presented in *The Three-Stage Model of Course Design*, by John F. Feldhusen. This book was published in 1980 by Educational Technology Publications, Inc., Englewood Cliffs, New Jersey 07632.

Table of Contents

UNIT 1

Economic Survival: Resources, Production, and Scarcity

Teaching Instructions

Teaching Instructions — Unit 1

Economic Survival: Resources, Production, and Scarcity

Teaching Objectives:

Students will:

1. Define productive resources and will identify the productive resources used to produce certain goods and services.
2. Define scarcity and explain why productive resources are scarce.
3. Understand that some productive resources are more scarce than others and that this is reflected in the prices of the resources.
4. Define opportunity cost and explain why every decision has an opportunity cost.
5. Use features on a map to identify how people work and earn income in a community.

Teaching the Economic Concepts:

It is very important that students understand the basic concepts introduced in this unit. While the concepts are not extremely difficult or complex, they still can give students some difficulty. Here are some key points to emphasize:

1. **Scarcity**—Students have difficulty believing that scarcity exists in affluent societies where there seems to be an abundance of goods and services. However, even in affluent societies, people still want more goods and services. Scarcity exists in any society or situation where there is an imbalance between relatively unlimited wants and the limited resource available to satisfy those wants.

   It is quite difficult to think of things that are not scarce. Some examples might include sand and water at the beach or the air you are breathing at this moment. But even air is scarce to a scuba diver or astronaut, and certainly clean air is scarce to the inhabitants of large cities. In fact, even the air you are breathing right now is scarce if it is heated or cooled. It takes scarce resources to install heating or air conditioning.

2. **Opportunity Cost**—It is very common for students to think that opportunity cost is the *sum* of all possible alternative choices. This is not true, of course. Because of scarcity, all of the possible alternatives cannot be chosen. Only the alternative that is *not* chosen when making a decision is the opportunity cost.

3. **How Map Features Identify How People Work and Earn Income in a Community**—Before giving students the IP you should explain how geographic features influence economic activity in a community.

   Analyze a community map and discuss some of the obvious relationships. For example, factories usually are located near major transportation routes or near natural resources used in production. Homes may not be located immediately around factories because of aesthetic reasons, however, poorer housing sometimes is located there. Farmland usually is located on flat, fertile land near rivers or in valleys. Hilly land is used for forests, for grazing, or is left unused. Hospitals, shopping districts, and schools are located in cities and towns, where they are more readily accessible. Discuss other examples. Let students give their ideas and make inferences.

Required Materials:

1. A transparency showing a fairly large scale map of a community or town would be helpful. You would not need this if such a map is available in a student text or on a chart.
2. The other obvious need for this and the other teaching units is paper. If paper and photocopying capability are greatly limited, you may have to do more oral instruction and omit photocopying parts of the teaching unit, especially the BI. To save paper, collect and reuse certain parts of this and subsequent units, such as the BI and GA instructions.

Extending the Unit:

Give and Take video "You Choose: Scarcity and Personal Decision Making."

Lesson 1: "Scarcity," and Lesson 6: "An Economics Hunt," in the Master Curriculum Guide booklet, *Strategies for Teaching Economics* (Junior High Level).

The teaching activity Blue Jeans to Income, from "Resources for the Marketplace," an issue of *The Elementary Economist*.

Answers To Questions In Unit 1

Answers to Questions to Master Worksheet

1. Natural Resources – the land itself where the factory is located; wood; iron; water and air used in production; energy sources, such as coal, oil, natural gas, or nuclear fuel.

   Human Resources – workers who cut trees or mine iron ore, workers on the assembly line, truck drivers to transport materials, managers to run the factory, etc.

   Capital Resources – buildings, machines in the factory, trucks or railroad advertisements for transportation, desks and computers in the office, etc.

2. Productive resources are scarce because, at a zero price, there are not enough to satisfy everyone's wants for them. This is one main reason why prices exist – to allocate these resources to individuals.

3. Possible answers: a computer is more scarce than a pen; oil is more scarce than water; a skilled worker is more scarce than an unskilled worker.

4. Price is the primary clue. The more scarce a productive resource is, the higher its price. For example, it costs more to buy a computer than it does to buy a pen! Skilled labor commands a higher wage than unskilled labor. Oil costs more than water.

5. If Mr. Clews decides to raise cattle, his opportunity cost is the money and satisfaction he forgoes by *not* growing corn. Growing corn is his *next best* choice, i.e., what he gives up.

6. See diagram in Unit 1 – Basic Instruction.

Answers to Group Activity Response Sheet

The eight items listed by each group will vary.

A. The group wants to take many different items on the expedition, but *space* is limited. There is a scarcity of space.

B. Scarcity forces us to make *choices*.

C. Answers will vary.

D. The ninth item is the opportunity cost because it is what is *not* taken as a result of choosing the eighth item. Even though there are other items to take, it is the ninth, or the *next* item that would be chosen, which is the opportunity cost. The opportunity cost is *not* the sum of all remaining items.

Answers to Questions for Individual Project

1. Answers will vary. Examples include water, land itself, trees, minerals, and air.

2. Answers will vary. Examples include all buildings, docks, mines, wells, water towers, and railroads.

3. Examples of production could include factories, farms, mines, fishing boats, and cattle ranches.

4. The opportunity cost of using some land for producing a particular good or service is what is given up by *not* producing a different good or service. A farmer who uses his land to grow wheat gives up the income he could gain by using the land to grow corn or raise cattle. A person who uses land for a factory gives up the opportunity to use the land for farming. Producers must make choices how to use all of their productive resources,

including land. These choices will always entail opportunity costs.

5. The presence of factories, complex farm holdings, highways, etc., indicates that highly skilled, and therefore highly productive labor resources are present in the economy. These kinds of skills require high levels of education and training.

6. There are many examples. If a town is located next to a lake or sea, inhabitants might engage in fishing. If there is a natural harbor, shipping and commerce would be common. If flat, rich land is abundant, farming would be prevalent. If the land is hilly, cattle and sheep might be raised. If there are abundant minerals, inhabitants would be engaged in mining.

Answers to Test on Unit 1 Concepts

1. Natural Resources: Steel, oil, aluminum, land, water, various chemicals, etc.

   Human Resources: Workers who mine iron and mineral ores, assembly line workers, truck drivers, maintenance persons, accountants, secretaries, etc.

   Capital Resources: All the necessary equipment, tools, machines, and buildings.

2. A resource or good is scarce if there is not enough to satisfy all the wants for it at a zero price. Because of scarcity, prices are necessary to allocate resources and goods.

3. Gold is more scarce than water. A brain surgeon is more scarce than a teacher. A tractor is more scarce than a shovel.

4. Price. A productive resource that has a low price (hammer) is less scarce than one that has a higher price (drill press).

5. The benefits he gives up by *not* growing corn. Every economics decision has an opportunity cost.

6. See production diagram in Basic Information.

UNIT 1

Economic Survival: Resources, Production, and Scarcity

Student Handouts

Trading Around the World

Introducing Economics Into the Middle School Curriculum

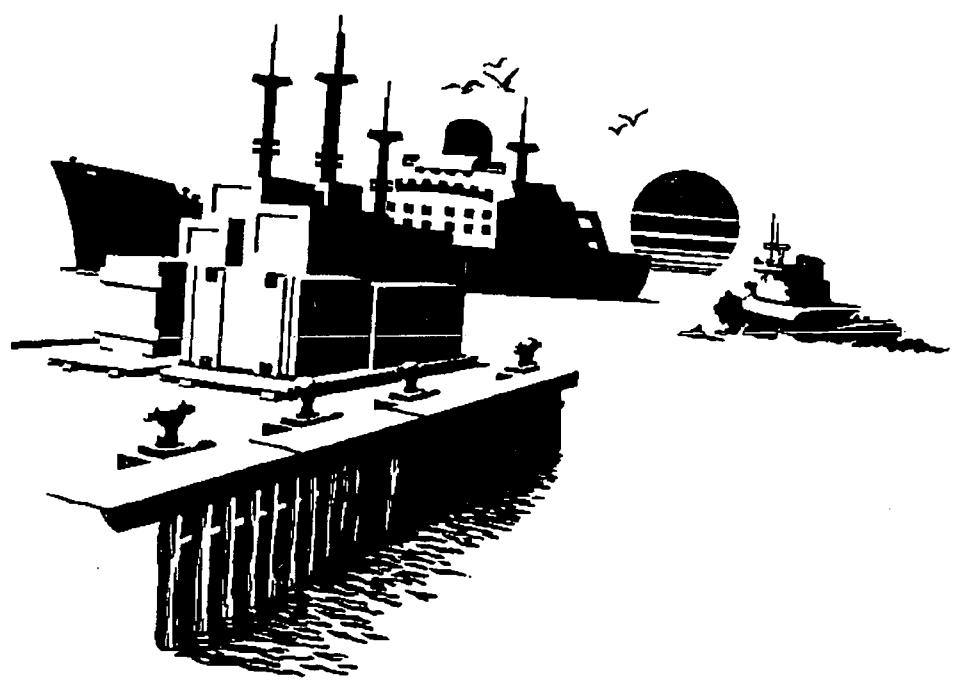
STUDENTS: As you study the history and geography of different countries of the world, you will have the opportunity to learn about the subject of economics. This is an important subject that affects you in many ways. It also affects people living in countries everywhere. Understanding basic economics will help you understand the history and cultures of the many countries you will study this year.

HOW YOU WILL LEARN ECONOMICS: Your teacher will give you several economic units during the year for you to do. Each unit has three parts. The first part is called the **Basic Instruction**, or **BI**. By studying this part you will learn basic economic concepts.

The second part of each economics unit is the **Group Activity**, or **GA**. The GA will give you practice applying concepts introduced in the BI. Your teacher will divide you into several groups. You must complete the activity or activities as a group. Your group will receive a Pass or Not Pass grade.

The last part of each economics unit is the **Individual Project**, or **IP**. You will be given an assignment which you must complete yourself. You probably will receive a grade on the project, so *do your best work.*

After you have completed the three parts of the economics unit, your teacher will give you a Mastery Test covering all the concepts you have learned.



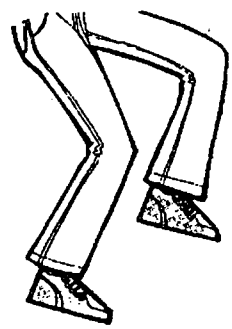
Basic Instruction (BI) – Unit 1

Economic Survival: Resources, Production, and Scarcity

Have you ever entered a large store like K-Mart and marveled at the thousands of things you can buy? Where did all of the products on the shelves come from? How did they get there? Why are there certain kinds of products and not others? Who decides what price to charge? One thing is certain – the products don't appear by accident. They have to be produced, and then they have to be delivered to the store for you to buy. The subject of economics will help you understand how all this takes place.

Productive Resources: What We Need to Produce Goods and Services

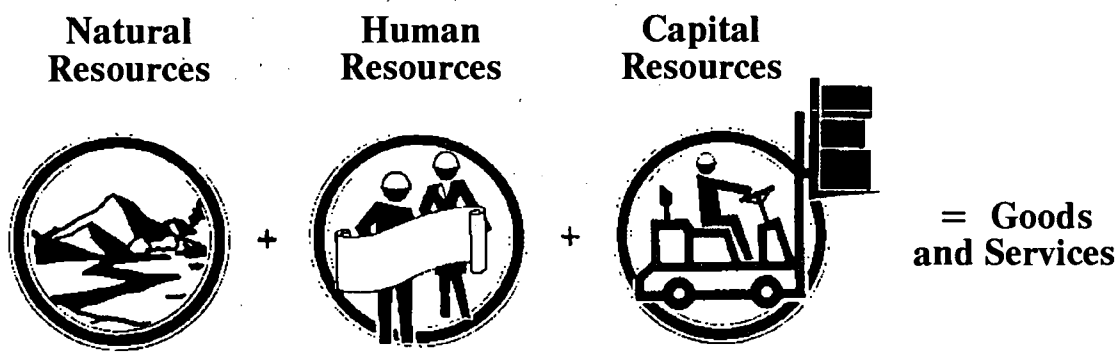
What does it take to produce a product, such as a pair of blue jeans? Well, economists will tell you that it takes resources, **productive resources** to be exact. That's a mouthful, but it's really not that difficult. There are three basic productive resources: natural resources, human resources, and capital resources. **Natural resources** are things such as minerals, water, trees, and land itself. Several types of natural resources are used to make a pair of jeans. It takes land to grow cotton. It takes metal for the zipper and snaps. Can you identify any other natural resources needed to produce blue jeans?



Human resources, or **labor,** refer to the human effort and energy used in production. Think of all the kinds of human resources it takes to make a pair of jeans! Farmers, truck drivers, factory workers, secretaries, and many others – all are important in the production process.

Capital resources refer to the buildings, machines, tools, and equipment used in production. It takes an incredible amount and variety of capital to make a pair of jeans. In fact, it would be impossible to make blue jeans without using some kinds of capital. What kinds of capital would you need?

The Production Process



Many economists also list a fourth basic productive resource – **entrepreneurship**. This refers to the skill, foresight, and determination it takes to start a business and produce a product. Entrepreneurs purchase natural, human, and capital resources and use them to produce goods and services. The entrepreneur hopes that many consumers will buy the goods and services so that he can make a profit.

Scarcity: There's No Such Thing as a Free Lunch (Or a Free Pair of Jeans!)

Why does it take money to get a pair of jeans? In fact, why does it take money to get just about anything? The reason is that the productive resources used to produce goods and services, including blue jeans, are **scarce**. Now this is a *very* important concept in economics. *A good, service, or productive resource is scarce if there is not enough to satisfy all that people want – at a zero price.*

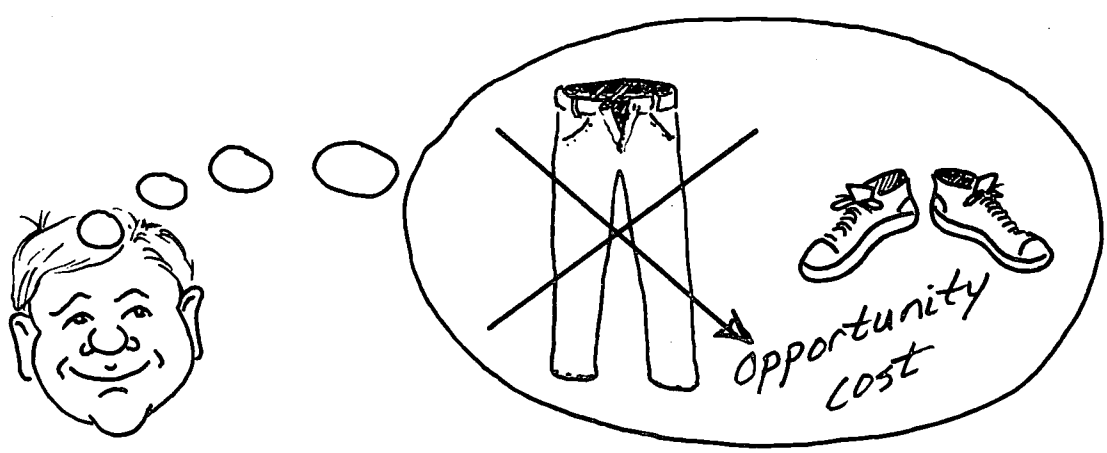
For example, how long do you think jeans would remain on the clothing racks at a department store if they were free? Right! Not very long! What about hammers, if they were free? Right again! Not very long! Everyone would rush to get them. At a zero price there would not be enough for everyone to have all that they want. Blue jeans and hammers are scarce. Can you think of anything that is *not* scarce?

Because jeans and hammers are scarce, people are willing to pay to get them. It's a good thing, too. The money that people pay for the jeans is what motivates the entrepreneur to produce them. After all, the entrepreneur could produce other things with his productive resources, like tennis shoes, or bow ties, or maybe tents for camping.

Opportunity Cost: Every Choice Has One!

Economists have invented another fancy term you need to know – **opportunity cost**. When you make a decision, your opportunity cost is the value of your next best alternative. For a producer, the opportunity cost of producing a particular good or service is what is given up by not producing another.

Suppose that an entrepreneur named Mr. Jones believes that blue jeans and tennis shoes are two products that consumers really want to buy. However, because the productive resources needed to produce blue jeans and tennis shoes are scarce, Mr. Jones cannot produce both. If he produces tennis shoes he cannot produce blue jeans. The blue jeans would be his opportunity cost. If he decides to produce blue jeans, then he cannot produce tennis shoes. Tennis shoes would be his opportunity cost. It's important to realize that there is an opportunity cost to every producer's decision.



More Or Less Scarce: Why Michael Jordon is a Millionaire

One more point and then you can get busy and answer the questions. Even though all productive resources are scarce, some are more scarce than others. This is pretty much common sense. Oil is more scarce than sand. A doctor is more scarce than a factory worker. A tractor is more scarce than a hammer. As you might guess, the more scarce something is, the more it costs. A productive resource that is very scarce has a higher price than one that is not very scarce. This is why the owners of the Chicago Bulls pay Michael Jordan so much for his labor as a basketball player. His talent is very scarce indeed.

Well, that's enough for now. Here are the key points to remember:

KEY POINTS TO REMEMBER!

1. All countries have scarce productive resources—natural, human, and capital. Some resources are more scarce than others. The more scarce the resource, the higher its price.

2. All countries use scarce productive resources to produce goods and services.

3. There is always an opportunity cost when a country uses its productive resources. The opportunity cost is the next best use for those resources.

Questions To Master

1. In the blanks below, identify some of the **productive resources** used to produce the desk or chair in which you are sitting.

Natural Resources	Human Resources	Capital Resources
_____	_____	_____
_____	_____	_____

2. In economics we learn that all productive resources are **scarce.** Explain what it means in economics for something to be scarce.

_____

_____

3. Some productive resources are more scarce than others. Give an example of one productive resource that is **more scarce** than another.

_____

_____

4. What is the primary clue that tells us whether one productive resource is more scarce than another? Explain briefly.

_____

_____

5. Mrs. Rodman can use her productive resources to open a computer store or start a pizza restaurant. If she decides to open the computer store, what is the **opportunity cost** of her decision? Explain briefly.

_____

_____

6. In the space below or on the back, carefully diagram the **production process.** *Label your diagram correctly.*

Group Activity (GA) — Unit 1

Economic Survival: Resources, Production, and Scarcity

Survival In the Jungle!

SITUATION: It is 1857 in England. You are very excited because your exploration group has just been selected by the English government to explore a remote jungle region of Africa. Below is the message you received from the government outlining your mission.

MISSION

Your group is hereby commissioned by Her Majesty the Queen to explore a remote jungle region of West Africa. We know there are native peoples there, but we are not sure if they will be hostile to outsiders. Your mission is to establish trading contacts with these people. You also should record natural resources and animal life found in the region. The Queen also wants you to record information about important geographical features. Medical experts report that the climate is tropical, with considerable chances for illness and disease. Make every effort to insure the safe return of group members.

YOUR GROUP TASK: Since space is very limited on the expedition, you must make some difficult decisions about what supplies to take. Your group of explorers has already packed many important basic supplies, including food, tents, and basic clothing. Unfortunately, there now remains room for only eight more items. You must choose *eight items* from the list below (a pack of items, such as a pack of six knives, counts as one item.)

LIST OF ITEMS:

Rifle with ammunition	ponchos (rain clothing)	mosquito netting
compass	clay pots	colorful jewelry
pistol with ammunition	a pack of six knives	a bundle of rope
a pack of pens and paper	a pack of medical supplies	burlap sacks
fishing equipment	a pack of six machetes	candles and flint

a book entitled *Treating Tropical Diseases*

Group Activity Response Sheet — Unit 1

Choose a group leader and a group recorder. List the leader, recorder, and other group members:

Leader _____ Recorder _____

Group Members _____

_____

Read and discuss the mission with your members. In your own words, summarize the mission of your exploration group.

_____

_____

_____

YOUR TASK: As a group, decide which eight items to take on the expedition. List them in the blanks below *in the order of importance*, with one being the most important. Then discuss and answer the questions below.

1. _____ 5. _____
2. _____ 6. _____
3. _____ 7. _____
4. _____ 8. _____

A. What is the scarcity problem that your group faces in this activity? _____

B. What did this scarcity problem force your group to do? _____

_____

C. What item would have been your group's *ninth* choice? _____

D. Why is the *ninth* item you identified in C above the **opportunity cost** of choosing the eighth item? _____

_____

Individual Project (IP) – Unit 1

Economic Survival: Resources, Production, and Scarcity

CREATE A MAP

Project Description:

You should enjoy doing this Individual Project (IP). Your basic assignment is to draw a map of a town or village and its surroundings. This assignment will give you the chance to apply the economic and geographic concepts you have learned. You also will see how these concepts fit together.

Specific Project Tasks:

Task 1: Choose a particular real or imaginary country. Your teacher may require you to pick a country or time period you have been studying.

Task 2: On a sheet of white paper create a map of a typical prosperous town or village in your country. Also show the surrounding countryside. The area represented by your map should not be more than 100 square miles. *You must follow the specific directions below very carefully!*

Task 3: Answer the "Questions for Individual Project" worksheet and turn it in with your map.

Specific Directions For Your Map:

a. Your map must have a title, scale, compass symbol, and legend (key) explaining map features.

b. Your map must have various kinds of features. You must have at least one kind of water feature, such as river, harbor, or lake. Also show other features such as roads, wells, water towers, swamps, hills, forests, buildings, factories, railroads, mines, or hospitals.

c. Use color to identify features and make your map more attractive.

d. Place your features logically, thinking how geography and economic factors fit together. For example, you wouldn't have a factory or grain elevator where there was no transportation (roads, railroad, river). You probably wouldn't put a water tower in a level area if there was a hill close by that would result in better water pressure. You wouldn't place a mine in the middle of a swamp.

Questions for Individual Project

1. List at least three features on your map that represent **natural resources.**

_____ _____ _____

2. List at least four features on your map that represent **capital resources.**

_____ _____ _____

_____

3. Which features on your map are examples of how people transform natural resources into more valuable goods and services? In other words, what examples of **production** are represented by features on your map?

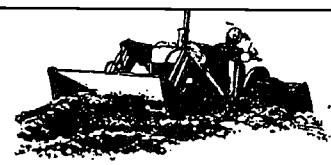
_____

_____

4. Identify a farm or factory on your map. What is the **opportunity cost** of using the land for this farm or factory? Explain.

_____

_____



5. Do the map features give any clues about the educational training and skills of the people who live in your town or village? Explain.

_____

_____

6. Explain carefully how geography influences how people work and earn income in the area represented on your map. Give specific examples in your explanation.

_____

_____

_____

Test On Unit 1 Concepts

1. In the blanks below, identify some of the **productive resources** used to produce a car.

Natural Resources	Human Resources	Capital Resources
_____	_____	_____
_____	_____	_____

2. In economics we learn that all productive resources and all goods and services are **scarce**. Explain what it means for something to be scarce.

_____

_____

3. Some productive resources are more scarce than others. Give an example of one productive resource that is **more scarce** than another.

_____

_____

4. What is the primary clue that tells us whether one productive resource is more scarce than another? Explain briefly.

_____

_____

5. Mr. Clews can use his scarce land either to grow corn or to raise cattle. If he decides to raise cattle, what is the **opportunity cost** of his decision? Explain briefly.

_____

_____

6. In the space below or on the back, carefully diagram the **production process.** *Label your diagram correctly.*

UNIT 2

Working and Living Together: The Importance of Trade

Teaching Instructions

Teaching Instructions – Unit 2

Working and Living Together: The Importance of Trade

Teaching Objectives:

Students will:

1. Explain why individuals and countries specialize in the production of goods and services.
2. Explain how specializing and then trading benefit individuals and countries.
3. Understand that voluntary trade benefits both parties in a transaction.
4. Explain how specialization and trade result in greater interdependence.
5. Understand how quotas and tariffs are barriers to trade.
6. Identify countries that export goods to the United States and identify the specific goods that are exported.

Teaching the Economic Concepts:

There are several key points to emphasize while teaching the economic content of Unit 2.

1. **Specialization** – One key point is that geography and climate greatly influence production choices, leading countries to specialize in those products that can be produced most efficiently. By specializing in what it produces efficiently, and then trading with other countries to obtain what it cannot produce as efficiently, a country greatly increases the goods and services available to its citizens. Without trade everyone would be much poorer. Admittedly, self-sufficiency grants a person or country a measure of independence, but it does not result in the most efficient use of productive resources.

2. **Mutual Benefits of Trade** – Another crucial point to emphasize is that voluntary trade benefits *both* parties in a transaction. There is not a winner and a loser. Both parties gain, otherwise they would not trade in the first place. Point out that we are assuming that both trading parties have accurate information about the goods being traded. For example, if you purchase a hair dryer and it is defective and carries no warrantee, you certainly have not benefited from this trade. This sometimes happens. However, when the parties in the trade have accurate information, trade is mutually beneficial.

3. **Interdependence** – Another key point to emphasize is the increasing interdependence of countries in today's world. This has occurred largely because of tremendous advances in technology, especially communication and transportation technology. Consider how much the telephone and the computer have affected trade. Business people now know almost instantly the prices of global competitors' new products, the prices of important productive resources, changes in government policies, or whether a salesperson across the globe has been successful in making a sale. Goods are transported rapidly around the world using modern highways, super tankers, and jet airplanes. These trends have accelerated the pace of specialization and trade, and therefore have increased global interdependence.

4. **Free Trade** – Some students may feel that free trade among nations is not beneficial since some Americans will lose their jobs. Point out that it is true that some workers in *particular* industries which do not remain competitive will lose jobs. However, economists have shown that free trade causes standards of living to rise and that the society *as a whole* benefits. Individuals and countries constantly must seek to produce those goods and services that they can produce most efficiently. They must remain competitive in world markets. This may mean ceasing or reducing the production of one type of good or service and beginning or increasing the production of another. This sometimes results in hardship on the part of some workers, and that is why the issue of free trade is controversial.

Teaching Suggestions:

1. Introduce this unit by using the WHERE IN THE WORLD? transparency. Have students guess the home country of the listed companies.

2. Make sure your students thoroughly understand the GROUP TASK directions before beginning group work. Some teachers may prefer discussing questions 11 - 15 on the Group Activity Response Sheet with the whole class.

3. You may wish to have each group member complete the Group Activity Response Sheet.

Required Materials:

1. You will need a world map to put on a bulletin board. Each group needs 10 colored pins, each group having a different color. If you can write on your map with different colored erasable markers, then the colored pins and bulletin board are not necessary.

2. For the IP, students need access to reference books or database software which provide basic information and simple trade data on various countries.

Extending the Unit:

"Trade," Lesson 6 in *Play Dough Economics*.

Return to Mocha video and accompanying teaching activities.

The teaching activity Islands of Trade, in "International Marketplace," an issue of the *Elementary Economist*.

"Reliance Alliance," Lesson 89 in *Worldways: Bringing the World into the Classroom.*

"World of Food," Lesson 45 in *Worldways: Bringing the World into the Classroom.*

Top 10 Purchasers of U. S. Exports – 1990
Table 2-1

Country	Billions of Dollars	Percent of Total
Canada	83.9	21.3
Japan	48.6	12.3
Mexico	28.4	7.2
United Kingdom	23.5	6.0
Germany	18.8	4.8
South Korea	14.4	3.7
France	13.7	3.5
Netherlands	13.0	3.3
Taiwan	11.5	2.9
Belgium/Luxembourg	10.4	2.6
Total Exports	$393.9	

Source: United States Department of Commerce

Top 10 Suppliers of U.S. Imports – 1990
Table 2-2

Country	Billions of Dollars	Percent of Total
Canada	91.4	18.5
Japan	89.7	8.1
Mexico	30.2	6.1
Germany	28.2	5.7
Taiwan	22.7	4.6
United Kingdom	20.3	4.1
South Korea	18.5	3.7
China	15.2	3.1
France	13.1	2.7
Italy	12.7	2.6
Total Imports	$494.9	

Source: United States Department of Commerce

WHERE IN THE WORLD?

What Are the Home Countries of These Companies?

Nestle _____

Shell _____

Lipton _____

Baskin-Robbins _____

Green Giant _____

Firestone _____

Ragu _____

Friskies _____

Nike _____

Hardees _____

Volvo _____

Sony _____

Magnavox _____

Tropicana _____

TV Guide _____

CBS Records _____

Vaseline _____

Bayer _____

Chicken of the Sea _____

Answers To Questions In Unit 2

Answers to WHERE IN THE WORLD?

Nestle – Switzerland
Volvo – Sweden
Shell – Netherlands/Great Britain
Sony – Japan
Lipton – Great Britain
Magnavox – Netherlands
Baskin-Robbins – Great Britain
Tropicana (fruit juices) – Canada
Green Giant – Great Britain
TV Guide – Australia
Firestone – Japan
CBS Records – Japan
Ragu – Great Britain/Netherlands
Vaseline – Great Britain/Netherlands
Friskies – Switzerland (owned by Nestle)
Bayer – Germany
Nike – United States
Chicken of the Sea – Indonesia
Hardees – Canada

Answers to Questions to Master Worksheet

1. When individuals or countries specialize, they concentrate their work efforts in producing a few types of goods or services, instead of producing a wide variety of different types of goods or services.

2. Japan specializes in electronics and automobiles, Argentina in producing agricultural products, and Iceland in producing (catching) fish. There are many examples.

3. Why individuals specialize:
   a.) A person might enjoy producing a particular good or service.
   b.) A person may have a special talent or skill in producing a particular good or service.

   Why countries specialize:
   a.) Geographic influences, such as kinds of natural resources or type of terrain.
   b.) Climatic influences, such as weather patterns.
   c.) Educational and skill level of human resources.

4. To be interdependent means depending on other individuals or countries to provide the goods and services you want. For example, a sick or injured person goes to the doctor, who has the knowledge and skill to help one get well. The doctor, in turn, depends on other people to provide the goods and services he needs.

   The same principal is true for countries. The United States depends on Brazil for coffee and shoes. Brazil depends on the United States for computer equipment and chemicals.

5. **Exports**: goods sold to other countries.

   Imports: goods purchased from other countries.

   Tariff: a tax levied on imports.

   Quota: a specific limit on the number of imports that may enter a country.

6. Answers will vary. Use this question to help students consider what skills or aptitudes they may have, and what type of work they may enjoy.

Answers to Group Activity Response Sheet

The answers to some of these questions may be difficult for your students. However, the questions will force students to think carefully about new ideas and issues. Don't expect perfect answers. Use the questions to challenge your students to think.

1-10. Students will find articles of clothing and items from all over the world.

11. Geography and climate greatly influence what a country produces. A sweater may come from Scotland because the hilly land and relatively mild climate are ideal for raising sheep. However, students will discover that wool sweaters may come not from Scotland, but from Asian countries such as China, Taiwan, Korea, and other countries not noted for sheep and wool production! Why is this? It is because low cost, **labor** – not natural resources – provides the great advantage. These countries can purchase wool from other countries who specialize in sheep production (Scotland?) and then make the sweaters themselves. This is especially possible today, with the incredible advances in information and transportation technology. Countries today are less and less constrained in their production by the natural resources defined by their physical geography.

12. Some patterns may emerge. For example, no goods at all may come from certain parts of the world. Electronic equipment may come mostly from Asian countries such as Taiwan, Japan, Korea, or Singapore. Shoes may come from Brazil, Taiwan, Italy, or Korea.

13. In economics, we learn that when two parties trade, both benefit. Each exchanges something he values less for something he values more. Both are better off after the trade. (Of course, one assumes accurate knowledge on the part of the traders.) Thus, if a student purchases a sweater produced in Korea, the student is better off, since he or she gets a sweater, and the Korean company and other retailers are better off since they have made a sale.

14. The correct answer is **more**. By specializing in production and then trading to get products we don't produce ourselves, we become wealthier, **yet more dependent** on other countries.

15. Being dependent is helpful since countries become wealthier through trade. Also, when countries are greatly dependent on each other through trade, it lessens the chances for disputes turning into war. There are possible disadvantages, however. When a country is dependent on another country, it may find itself without key products and resources if war occurs. Or, a country may be faced with huge and sudden price increases in key products, such as oil.

Answers to Questions for Individual Project

PART I: What's In A Name

A. Names from the telephone directory will vary.

B. The exact definition will vary depending on the dictionary. Below is the type of work associated with each name.
   1. Chamberlain – attendant or chief officer
   2. Cooper – person who repairs or makes wooden casks or tubs
   3. Fletcher – maker of arrows
   4. Wright – someone who works with wood, usually in shipbuilding
   5. Mason – a worker who lays stone or brick
   6. Chandler – a maker or seller of candles
   7. Scrivner – someone who copies or writes.

PART II: Country Display

Make sure students have completed each part of each assigned task. It is easy to forget to do one of the tasks.

Questions A.-F. answers will vary depending on the country chosen. Question C. could present some difficulty. Most answers will identify the productive resources that enable a country to produce certain goods and services very efficiently. For example, the **climate, soil,** and **expertise** of Brazilian farmers are what influence us to trade with Brazil for coffee. Brazil produces coffee more efficiently than the United States, so we trade what we produce efficiently for Brazilian coffee. **Location** is also a factor. For example, one reason the United States trades with Mexico and Canada is their proximity.

Answers to Test on Unit 2 Concepts

1. When a country specializes, it produces only certain kinds of goods and services, those it can produce most efficiently. The country does not try to be self-sufficient. Japan specializes in electronic equipment, Germany in chemicals, Brazil in coffee, etc.

2. Japan specializes in electronic equipment because it can produce this equipment efficiently, that is, it has a cost advantage (comparative advantage) in producing electronic equipment. This is because Japan has the productive resources that give it a cost advantage – especially skilled labor and sophisticated capital.

3. The statement is true. Specialization and trade force countries to depend on other countries for many different goods and services.

4. **Imports:** goods purchased from other countries.

   Exports: goods sold to other countries.

   Tariff: a tax levied on imports.

   Quota: a specific limit on the number of imports that may enter a country.

5. The United States trades with Japan, Brazil, Argentina, Canada, and many others. Major product answers will vary.

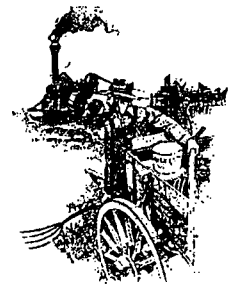
UNIT 2

Working and Living Together: The Importance of Trade

Student Handouts

Basic Instruction (BI) – Unit 2

Living and Working Together: The Importance of Trade

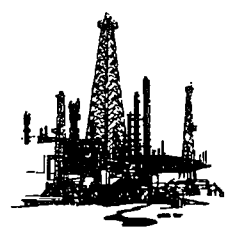


Do you remember studying about pioneer life in the United States? Life on the frontier certainly was not easy. Often it was a struggle merely to survive. One thing is for sure, the pioneers couldn't buy things at the local department store or supermarket! Instead, families had to produce most of what they needed themselves. In economics, we would say the pioneers were very **self-sufficient**. A typical farm family grew almost all its own food and made its own clothing. The family also produced furniture, butter, candles, and a wide variety of other items. Pioneer children even attended school at home.

Specialization and Trade

Did you ever wonder why all this changed? As you may suspect, it had a lot to do with economics. The pioneers soon discovered that they could improve their standards of living if they **specialized** in certain kinds of work. Instead of farming, some pioneers became blacksmiths, furniture makers, teachers, clothing makers, and candle makers. Then they would **trade** to obtain food and other goods and services.

Specializing lets people concentrate on work that they enjoy and that they do well. People can become very skilled at producing specific kinds of goods or services. For example, the pioneer farmer no longer had to worry about producing a wide variety of products. Instead, he could focus his efforts on producing one kind of product, such as wheat. This enabled him to farm more land, and to farm it more efficiently. He could trade any excess wheat for iron tools, clothing, furniture, candles, and other items. The individuals who made these items were happy to trade with the farmer, since they grew no wheat! Everyone was better off.



Interdependence

Because of increased specialization and trade, goods and services became much more available. Towns and villages came into existence, and standards of living rose rapidly. The increased specialization and trade also produced another very important change in pioneer life – people grew much more **dependent** on each other. Farmers depended on the merchants and the merchants depended on the farmers. This growing **interdependence** produced much more income, but made people very dependent on the goods and services that only others could provide.

It is very important for you to understand that the principles of specialization and interdependence also apply to trade between countries. Like individuals, countries specialize in the production of certain goods and services. What a country specializes in is greatly influenced by its **geography** and **climate**. For example, Japan has little land and few natural resources, and therefore specializes in manufacturing goods such as electronic equipment and automobiles. Argentina, with abundant and rich land and a favorable climate, produces many agricultural products. Saudi Arabia specializes in producing oil since it has an abundance of this valuable natural resource. To get other goods and services that they want, countries trade with each other. The end result is that more goods and services are available to the people living in these countries.

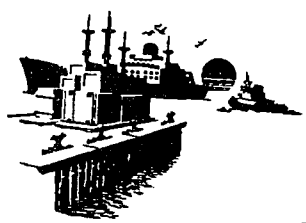
Specialization and trade also make countries very dependent on each other. The United States depends on Japan for VCRs and televisions, on Brazil for coffee, and on the Middle East for oil. These countries in turn depend on us for various products. The more our world has grown and developed, the more **interdependent** it has become. In the future, it will be even more so.

It is an unavoidable fact of economics – the more specialization and trade there is, the more people must depend on each other. One advantage of this is a much higher standard of living. Another advantage is that people who are dependent on each other are more likely to cooperate with each other. Instead of using force when disputes arise, trading partners are more likely to solve their disputes peaceably.

Trade Barriers

Sometimes people complain about trade. They say that too much trade causes workers to lose jobs. Therefore countries sometimes try to limit trade by creating **trade barriers**. The most common types of trade barriers are tariffs and quotas. A **tariff** is a tax on imports. **Imports** are goods purchased from their countries. **Exports** are goods we sell to other countries. A **quota** is a specific limit placed on the number of imports that may enter a country.

Should countries create trade barriers that limit trade? People often disagree on this question. It is true that some workers in certain industries may be hurt by trade. For example, some American clothing workers have had to change jobs during the past 20 years because many clothes now are imported from other countries. However, this trade allows Americans to buy quality clothing imports at good prices. This results in a higher standard of living for the United States and for our trading partners. For this reason, most economists agree that it is good to let countries trade as much as possible.



KEY POINTS TO REMEMBER!

1. When individuals and countries specialize, more goods and services are produced.
2. When individuals and countries specialize, they must trade to obtain the different kinds of goods and services they want.
3. Specialization and trade always cause individuals and countries to be more dependent on each other.
4. Countries sometimes try to limit trade to protect the jobs of some workers. However, most economists believe that it is best to let countries trade as much as possible.

Questions To Master

1. What does it mean for an individual or country to **specialize** in the production of goods or services?

_____

_____

2. Give an example of a country specializing in the production of a good or service.

_____

3. Give two reasons *why* individuals or countries specialize in the production of certain goods and services.

a. _____

b. _____

4. What does it mean to be **interdependent**? Give an example.

_____

_____

_____

5. Define these terms:

a. Exports: _____

b. Imports: _____

c. Tariff: _____

d. Quota: _____

6. What type of work would you like to specialize in after you are finished with high school or college? Why?

_____

_____

_____

Group Activity (GA) — Unit 2

Working and Living Together: The Importance of Trade

LABEL SEARCH!

OVERVIEW: In this activity your group must conduct a "label search" in your classroom. This activity will help you realize how much we trade with other countries. The activity also will help you realize how much we benefit from trade.

YOUR GROUP TASK: Here's how to do your "label search."

Step 1: Choose a group leader and recorder. Each group member must search the classroom and identify at least five articles of clothing or other items that have been produced in another country. (Try to identify clothing or items that have *not* been identified by members of another group.) Use scrap paper to record the name of the items and the country. *Be specific* with your descriptions. For example, instead of recording just "coat," give a more precise response, such as "John's blue coat."

Step 2: After your group members have conducted their search, meet together as a group and complete the "Group Activity Response Sheet." Using your newly gathered information, list ten articles of clothing or items that have been produced in ten *different* countries.

Step 3: Using different colored pins or erasable markers, your group recorder should locate each of your ten countries on the world map in your classroom. The other group recorders will do likewise. (There will be more than one pin in certain countries.)

Step 4: Discuss and answer Questions 11-16.

Group Activity Response Sheet

Leader _____ Recorder _____

Group Members _____

_____

YOUR GROUP TASK: Use the data gathered by group members to fill in the blanks below. Be specific in your clothing and item descriptions.

CLOTHING OR ITEM DESCRIPTION	COUNTRY WHERE PRODUCED
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

11. Analyze your list carefully. What are some specific reasons why these countries specialize in the production of these clothing items?

_____

_____

_____

_____

12. What patterns do you notice with the pins on the map? Do they cluster in a particular part of the world?

_____

_____

13. When you or someone else buys the clothing or items produced in a foreign country, who benefits? Explain your answer.

_____

_____

_____

14. Do you think trade makes our country *more* or *less* dependent on other countries for the things we want and need?_____

15. Do you think it is good or bad to be dependent on other countries for the things we buy? _____

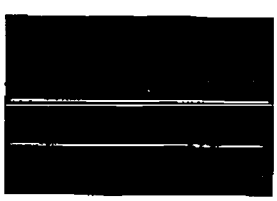
Explain why you think this way.

_____

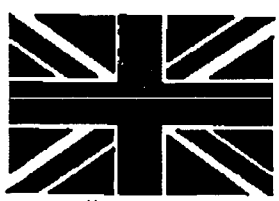
_____

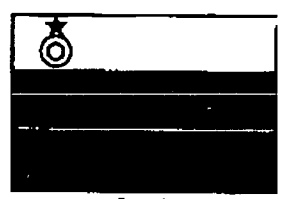
_____

16. Discuss this statement. "To save American textile jobs, Congress should put a quota (limit) on the number of foreign clothes that are imported into our country." Present your group's views to the class.


Colombia


Cuba


United Kingdom


Bulgaria

Individual Project (IP) – Unit 2

Working and Living Together: The Importance of Trade

WHAT'S IN A NAME? and COUNTRY DISPLAY

Project Description:

This IP has two parts. In Part I you will search a phone directory to discover how many names illustrate the jobs that people once did. In Part II, you will make a display/report about the products of a particular country. You will have to research the country on your own. Write neatly and do your best work. Use a variety of resource materials.

Specific Project Tasks:

Part I: WHAT'S IN A NAME. Complete the "What's In a Name?" worksheet. You will need a telephone directory and a dictionary.

Part II: COUNTRY DISPLAY

A. Choose a country to investigate. Draw or copy a map of your country, also showing the region of the world where your country is located. Identify the location of the country using the latitude and longitude grid system.

B. Make a display of at lease three important products that are produced by that country. You may bring actual products, pictures of products, or you may draw pictures of products. You may want to make clay sculptures/models of typical products. Be creative! Make your display as colorful and as interesting as possible.

C. Label each product in your display. On each product label your teacher gives you, write a brief description of the product and explain why the country specializes in the production of the product. On the label also list some of the different **productive resources** that are used to produce the product. Put an asterisk (*) by the productive resource that you think is the **most scarce**.

D. List some of the important trading partners of your country. Explain why your country trades with these particular countries (Hint: A country's location and its productive resources will give you some clues.)

E. Your display also must include at least one chart or bar graph; illustrating how your country compares with other countries in the production of a particular product. You will have to use an encyclopedia or some other reference source to gather the data. You may include other charts and graphs in your display.

F. (Optional) Give a two- to five-minute oral presentation describing your display.

What's In A Name Worksheet

A. Search a phone directory to find eight names that represent the type of work that people did. For example, Smith is a short form of blacksmith, someone who worked with metal. Do *not* use any of the names found in Part B below. Use your dictionary to help you if necessary.

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. _____
7. _____ 8. _____

B. Below are some names that represent the type of work that people did. Find the *noun* meaning of these words in a dictionary. In the blanks, identify the type of work associated with each name.

1. Chamberlain _____
2. Cooper _____
3. Fletcher _____
4. Wright _____
5. Mason _____
6. Chandler _____
7. Scrivener _____

PRODUCT LABEL

Country_____ Product Name_____

Why does this country specialize in the production of this product?

_____

_____

_____

These are some of the productive resources used to produce this product:

Natural Resources	Human Resources	Capital Resources
_____	_____	_____
_____	_____	_____

PRODUCT LABEL

Country_____ Product Name_____

Why does this country specialize in the production of this product?

_____

_____

These are some of the productive resources used to produce this product:

Natural Resources	Human Resources	Capital Resources
_____	_____	_____
_____	_____	_____

Test On Unit 2 Concepts

1. What does it mean for a country to **specialize** in the production of goods or services? Give an example in your explanation.

_____

_____

_____

2. Why does Japan **specialize** in producing electronic equipment like VCRs and televisions?

_____

_____

3. A famous economist once said, "Specialization and trade make our world more **interdependent.**" Is this true or false? Explain your answer.

_____

_____

4. Define the following:

Imports: _____

Exports: _____

Tariff: _____

Quota: _____

5. List four countries that trade with the United States, and identify a major product that we get from each country.

Country	**Product**
_____	_____
_____	_____
_____	_____
_____	_____

UNIT 3

Gross Domestic Product: Measuring the Income of Nations

Teaching Instructions

Teaching Instructions — Unit 3

Gross Domestic Product: Measuring the Income of Nations

Unit Overview:

The most common measure of the income levels of different countries is **Gross Domestic Product (GDP)**. A firm understanding of GDP will help students in various social studies courses, and this is why this entire teaching unit is devoted to it.

To teach the concept of GDP in this unit, you will use Lesson 15 from the *Play Dough Economics* curriculum. It is a motivating and concrete way to learn this concept and your students will enjoy it. The lesson is included in this teaching unit.

Teaching Objectives:

Students will:

1. Define Gross Domestic Product (GDP).
2. Understand how GDP is computed.
3. Understand how per capita GDP is computed.
4. Identify difficulties in using GDP to measure and compare income levels of countries.
5. Identify patterns in levels of GDP in countries throughout the world.

Teaching the Economic Concepts:

Below are some key points to emphasis as you teach this unit.

1. **Computing GDP:** GDP measures the market value of the goods and services produced in an economy in a year. To avoid counting the same production twice, economists use only *final* products in GDP calculations. For example, the flour used in making a loaf of bread is not a final product, and the market value of this flour is not counted in GDP calculations. However, the flour's value is captured in the final price of the bread. The flour that consumers purchase in a supermarket is a final good, and would be counted in GDP.

   Important Note: Gross Domestic Product (GDP) recently replaced **Gross National Product (GNP)** as the primary means of measuring national income/production. The two measurements are roughly equal, and can be considered so in this unit. GDP is now used because it (1) is more consistent with other indicators of United States economic performance (2) is the primary measure of production in most of the rest of the world, and (3) is easier to measure in a timely manner.

2. **Real versus Current (Money) GDP:** *Play Dough Economics* Lesson 15, "GDP: Measuring What We Produce," teaches difference between real and current GDP. The basic idea is that a country's current GDP may increase, not because of an increase in the production of goods or services, but because of an increase in the prices of goods and services. Students need to know that they must use prices from a specific base year in order to make valid GDP comparisons. On graphs and charts that show real GDP the base year is usually indicated.

3. **Problems with Making Comparisons Using GDP Data:** Students should realize that GDP data is rather imprecise, and must be used very carefully when making comparisons. These are some of the key points to mention:

   a. GDP data is frequently very rough. Many countries have inadequate or incomplete data collection techniques. This is especially true in developing countries, where much economic activity does not occur in developed markets where it can be counted easily. Thus, the GDP of developing countries tends to be relatively understated compared to the GDP of industrial countries. For example, in 1990 the average per capita GDP in Ethiopia was $120, while in the United States it was $21,000. Although the average Ethiopian is very poor compared to the average American, the difference is not as extreme as these figures indicate. One major reason is because Ethiopian farmers consume much of what they produce. Their produce is not traded in the

markets where it could (possibly) be counted.

b. Per capita GDP is an *average* measurement. It does not measure *distribution* of income in a country. As an extreme example, a country with a per capita GDP of $12,000 could have half of its population with an income of $20,000 and half with an income of only $4,000!

c. GDP is only a measure of material well being, and not necessarily a measure of happiness. People who have less material possessions may in fact have a happier, more content life style than wealthy persons, although extreme poverty is an existence few people would want.

4. Looking Ahead to the Next Unit—This teaching unit will end with students asking the obvious question—"Why are there such great differences in GDP throughout the world?" Units 4 and 5 will help students understand the answers to this difficult and perplexing question.

Teaching Suggestions:

1. Basic Instruction (BI):

   a. When you use *Play Dough Economics* Lesson 15 to teach GDP, you can omit the part of the lesson which stresses the difference between current GDP and real GDP. To do the GA and the IP students do not have to understand this difference. However, most students can understand real versus current GDP, and it is something you probably will want to teach.

   b. In this unit it is best to assign the Questions to Master Worksheet *after* students have completed the Group Activity.

2. Group Activity (GA):

   a. It is best if each student in the group is a recorder and completes a Group Activity Response Sheet.

   b. Read the directions with your students. Groups must complete questions 1 to 4 before receiving any play dough. Stress that the answers to questions 3 and 4 on the Response Sheet should be logical. For example, a low-income country would probably not specialize in the production of commercial aircraft.

   c. Students should use small amounts of play dough to make their products. Otherwise too much play dough is required.

   d. In the discussion following the GA, make the following points:

   (1) The GDP of groups that were "high-income countries" was more than the GDP of the "low-income countries." Why? (Because the goods the HCs chose to produce had much higher prices, reflecting a higher value.)

   (2) This exercise shows that GDP is an *average* figure. However, individuals within each group that produced a lot would earn more that those who did not! Income would *not* be evenly distributed.

   e. For additional practice, create more GDP worksheets. Or, have your students create GDP problems and exchange them with their classmates.

3. Individual Project (IP):

   a. Some students may want to do a similar activity for other types of data listed in the data tables. Let the students determine the "break points" for the color code. Students may want to use more that just three colors.

   b. Invite someone from another country to your classroom to discuss the lifestyle/income differences between their country and the United States.

   c. Have students bring articles from newspapers or magazines that mention GDP. Make a bulletin board display using these articles.

Required Materials:

1. Each student will need play dough to make at least four or five small goods. The following recipe makes a small bag of play dough:

Play Dough Recipe

1 cup flour	1/2 cup salt
1 T. oil	2 t. cream of tartar
1 cup water	food coloring

Cook over medium heat until a ball forms. Knead in a large zip-lock bag for a few minutes. Remove air from bag and zip shut.

2. To do the IP, students will need blackline masters of the continent or region being studied. (This activity works best using a map of the world, using continents like Asia, which show a wide variety of low-, middle-, and high-income countries.) Students also will need colored pencils or crayons.

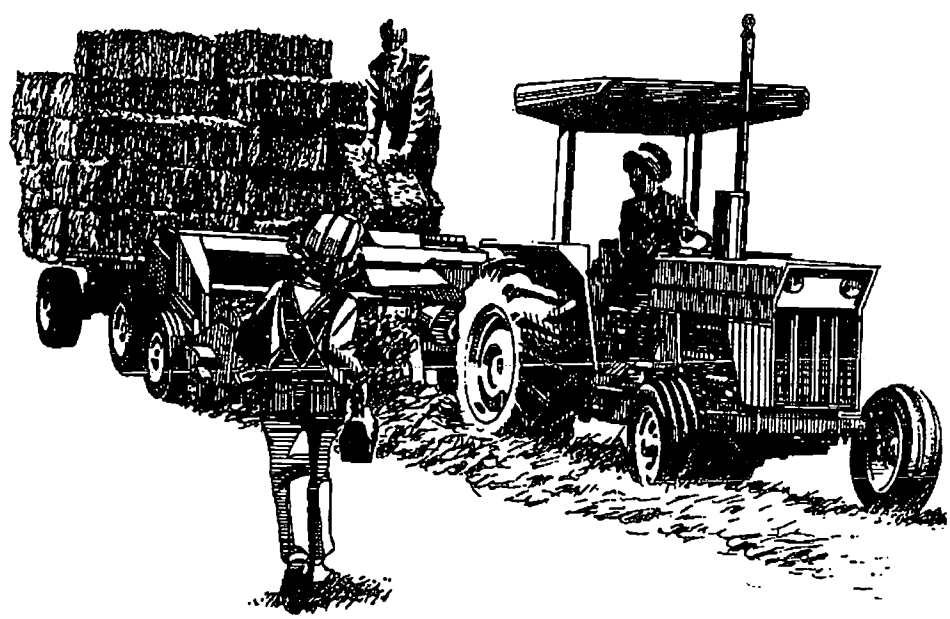
3. To receive current GDP data, request the booklet, *National Economic Trends*, from the Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. To receive data about other industrial countries request the booklet, *International Economic Conditions*, from the same address.

Extending the Unit:

1. Lesson 10, "Economic Growth," in *Strategies for Teaching Economics: Junior High School Level*.

2. *The Development Data Book*, published by the World Bank.

3. *PC Globe* is a software database program that gives students access to a multitude of data about all the countries of the world. It is an excellent source for this unit. Available in IBM PC compatible, Macintosh, or Apple IIg versions.



Lesson 15 – Play Dough Economics

GDP: Measuring What We Produce

Teaching Objectives:

1. To teach the meaning of Gross Domestic Product.
2. To teach that real GDP, not money GDP, is the more significant measure of GDP.

Economic Concepts/Vocabulary:

Gross Domestic Produce (GDP), Real GDP, Current (Money) GDP, Inflation

Time Allowed:

40-45 minutes

Materials:

Enough play dough for each student to make two small sculptures

Discussion:

Gross Domestic Product (GDP) measures the market value of all the goods and services produced in the economy in a year. Economists use GDP data to measure the economy's growth. Historically, in the United States GDP has grown on average about three percent per year.

When GDP is computed using current dollar prices, it is referred to as **money GDP**, or **current GDP**. The problem with using money GDP is that **inflation** makes it difficult to determine how much real GDP growth has actually occurred. Money GDP may grow substantially, but that growth may be primarily the result of higher **prices**, not of actual growth in the amount of goods and services produced. To compare real GDP growth from year to year, economists compute GDP in terms of the dollar prices of a previous **base year**.

Two shortcomings of GDP as a measure of economic growth are that it does not measure increases in leisure time (more holidays, vacations, shorter work hours, etc.) and it measures only market activity. Productive activity done by families, such as housework or lawn work, is not reflected in GDP.

Teaching Tips:

1. GDP may appear to be a rather complicated concept for middle school students. Actually the concept is rather simple, and students who perform this activity should gain a basic conceptual understanding without much difficulty.

Teaching Procedure:

1. Ask students if they would like to do an economics activity using play dough to learn a concept that university students learn. Pass out enough play dough for each student to make *two* small sculptures.
2. Tell the students that the next five to eight minutes will represent all of 1992 (or the present year). During this time each student must produce *two* of the following goods: shirt, calculator, telephone, doll, book, or basket of apples. Students can produce two different types of goods if they wish.
3. After the production period, students must place their goods on a table in front of the room. On the board, draw a GDP Calculation Chart. (See example below.) Write the names of the goods in the first column. Count how many of each good were produced, and write these totals in the "Number Produced" column.
4. Have the class estimate separate prices for **each** type of the goods, and then write the prices in the "Price" column. Multiply the number of each good produced by the price of the good (as decided by the class) to complete the "Revenues" column. To compute the GDP, add the last column. Explain what GDP means.

GDP CALCULATION CHART

Sample 1992 GDP Calculation

Good	Number Produced	Price	Revenues
Shirt	8	$10.00	$ 80.00
Calculator	6	$17.00	$102.00
Telephone	8	$15.00	$120.00
Doll	10	$ 4.00	$ 40.00
Book	4	$ 9.00	$ 36.00
Basket of apples	4	$ 8.00	$ 32.00
		GDP FOR 1992 =	$410.00

5. Have the students destroy the goods they just made. Tell the students that now you want them to produce goods for the next year, 1993. This time they each must produce only *one* good with the play dough. They must do good work. Place goods in front of the room and calculate GDP as before, using the *same* (ie., 1992) prices.

6. Has GDP increased or decreased? (Probably decreased) Why? (Less goods have been produced, and their total value is less.) Assuming that the GDP has decreased, what has happened to the standard of living in this country? (It has gone down, since there are less goods available to consumers.) Why would GDP decrease so dramatically in a country? (Perhaps war, plague, natural disaster, etc.)

7. Tell students that you forgot to tell them that the government had created and spent a lot of money in 1993, and that prices had increased drastically. Their GDP for that year is, therefore, inaccurate. They must recompute the 1993 GDP using the *new* prices. Show the students some new prices, which are four times higher than the previous 1992 prices. Compute the 1993 GDP using these new prices.

8. How has the 1993 GDP computed with the *new* prices changed from the 1993 GDP computed with the *old* prices? (It increased, approximately four times.) Is the country's standard of living any different? (No, prices are inflated, making GDP higher; but the amount of goods is the same!)

9. Have the students compare the 1992 GDP with the 1993 GDP computed with *new* prices. Which is bigger? (Probably the 1993 GDP) Does this mean that the standard of living was higher in 1993? (No, in fact it was *lower*, since less goods were produced! The high GDP in 1993 was due only to higher *prices*.)

10. How could we make a more accurate comparison of GDP from year to year? (Use the same prices from a base year. In our example, use the first set of prices from our 1992 base year with the actual 1993 production, and then compare. This gives a comparison of **real** GDP.)

11. What are two other shortcomings of using GDP as a measure of growth? (GDP does not measure increases in leisure; GDP only measures market activity—see Discussion.

Follow-up and Extension Activities:

1. Have students bring articles from newspapers or magazines where GDP is mentioned. Put these on a bulletin board.

2. Locate actual GDP data and analyze real and nominal GDP growth. An excellent, free source is *National Economic Trends*, a booklet published quarterly by the Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. This is a good exercise in interpreting tables and graphs.

3. Make GDP worksheets and use them as math exercises.

Answers To Questions In Unit 3

Answers to Questions to Master Worksheet

1. GDP measures the market value of the goods and services produced in an economy in a year.

2. Per capita GDP measures the amount of GDP available *for each person*.

3. a. 1991 GDP for country X is $6,800.

   b. Per capita GDP for country X is $340 ($6,800/20 = $340).

4. a. 1992 GDP for country X is $9,400.

   b. 1992 per capita GDP is $470 ($9,400/20 = $470).

   c. Current GDP in 1992 is the same as 4a., $9,400.

   d. Real GDP is $6,800. This is because the same number of goods and services was produced in 1992 as in 1991! To get the real GDP for any year, we multiply the actual amount of goods and services produced by the prices in the particular **base year**, in this case 1991.

5. a. Valuable goods and services that are produced may not get counted (Example: housework and lawn work).

   b. GDP does not tell how income is distributed within a country.

   c. GDP is only a material measure – it doesn't necessarily measure happiness.

   d. One must use real GDP to make accurate comparisons. That is, prices can inflate money GDP, without real growth taking place.

Answers to Group Activity Response Sheet

Questions 1 - 3: Answers will vary, but answers should be logical.

4. Various correct answers could be given. The key idea is that the country's **productive resources** (including its climate) are conducive to the production of certain goods. For example, Japan produces sophisticated electronic equipment because it has highly educated human resources. Argentina produces agricultural and meat products because it has good farmland. Saudi Arabia produces oil because it has an abundance of this natural resource.

5. GDP will vary depending on what the group produced.

6. Group "population" will vary. Count actual group size.

7. Answers will vary. Divide GDP by "population" (group size).

Answers to Questions for Individual Project

On tasks A-G be sure that your students follow the directions carefully.

In E, the fundamental economic reason that countries are poor is that they do not produce many valuable goods and services. There are many factors that may contribute to this fact, such as poor health and education, a difficult climate, lack of technology, few natural resources, etc. However, challenge students to think beyond some of the obvious factors. For example, Hong Kong has many people, almost no natural resources, and is still a colony; yet it has a vibrant economy and a standard of living that is higher than many countries!

Answers to Test on Unit 3 Concepts

1. GDP measures the market value of the goods and services produced in an economy in a year.

2. Per capita GDP measures the amount of GDP available for each person.

3. a. GDP of country Y is $5,100.

   b. Per capita GDP of country Y is $170 ($5,100/30).

4. Country A has the higher per capita GDP – $240.

5. a. Valuable goods and services that are produced may not get counted (example, housework and lawn work).

   b. GDP does not tell how income is distributed within a country.

   c. GDP is only a material measure – it doesn't necessarily measure happiness.

   d. One must use a base year (compute real GDP) to make accurate comparisons. Prices can inflate GDP, without real growth taking place.

6. Answers will vary.

UNIT 3

Gross Domestic Product: Measuring the Income of Nations

Student Handouts

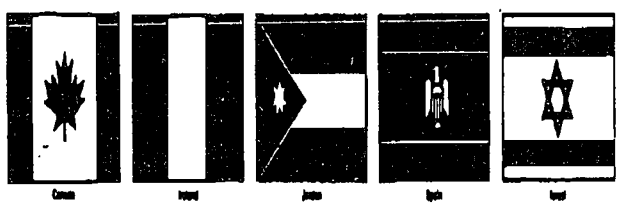
Gross Domestic Product: Measuring the Income of Nations

How do you measure how much income a person has? Typically we measure how much money a person has. But money isn't really the most basic way to measure income, since a person's money can be worthless unless there is something to buy. For example, in Germany after World War I a person with 6 *trillion* marks could only buy *one* loaf of bread! Money was so worthless that it was used as fuel to heat homes and cook food.

A more accurate way to measure a person's income is to determine how many goods and services can be bought with the money that a person has earned. After all, the reason we want money is because it enables us to buy the goods and services we want.

Similarly, when economists want to know the income of a certain country, the economists are interested in how many goods and services are available to the people of the country. There is a special term that economists use to measure a country's income – **gross domestic product**. Usually it is abbreviated **GDP**. Here is the important definition:

Gross Domestic Product (GDP) measures the market value of all final goods and services produced in an economy in a year.



(This definition isn't really as difficult as it may seem. Your teacher will do a class activity to help you better understand what GDP means.) The United States GDP measures the dollar value of all the goods and services produced in our economy during a year. As you can imagine, this is a pretty large amount. In the United States, for example, the 1990 GDP was over *5.5 trillion dollars!*

Per Capita GDP

GDP data helps economists compare the income levels of different countries. However, to make more accurate comparisons, economists use another term – **per capita GDP**.

Per capita GDP measures the amount of GDP that is available for each person.

For example, suppose country A has a GDP of $5,000, and country B has a GDP of $2,000. In which country do the people have higher levels of income and a higher standard of living? Answer: You can't really tell since you don't know how many people live in the countries!

Suppose country A has a population of 50, while country B has a population of only 10. The average amount of GDP for each person in country A would be $100 ($5,000/50 = $100). The average amount available for each person in country B would be $200 ($2,000/10 = $20). Even though country B has a lower *total* GDP it has a higher *per capita GDP.*

Economists classify countries into groups according to income, or per capita GDP. **High-income countries** (HCs) have high standards of living with many goods and services. These countries usually rely on manufacturing, although some high-income countries, like Kuwait, are wealthy because of huge oil reserves. **Middle-income countries** (MCs) and **low-income countries** (LCs) rely more on agriculture, and have lower standards of living. These countries are sometimes called **Third World** or **Developing Countries.**

Problems with GDP

Although GDP data is very helpful it is not a perfect measure of how wealthy a country is. For one thing, certain valuable goods and services are not counted when figuring GDP. For example, GDP does not include the value of housework or lawn work done by a family. Or, in a developing country a poor farmer's family may eat practically all the food produced on the farm. That food would not be counted as part of GDP.

Another problem with GDP is that it doesn't tell us how the income is *distributed* within a country. If a country has a per capita GDP of $8,000 a year, this doesn't mean that everyone earns that much income. It means that $8,000 is the *average* income. In this country, some people could be very rich, while others could be very poor.

Also, GDP only measures material wealth. It is not a measure of genuine happiness or contentment. People who have much wealth are not always happier than those who have less. Perhaps you know someone who has a lot of money, but who is not very happy.

Gross Domestic Product (GDP) is probably a new concept for you. At first, it may be difficult to understand, but it is a very important concept to learn. GDP helps us to understand the different standards of living of people throughout the world.

Key Points to Remember:

1. **Gross Domestic Product (GDP)** measures the market value of the goods and services produced in a country in a year.
2. **Per capita GDP** measures the amount of GDP that is available for each person.
3. GDP is not a perfect measure for making comparisons. Valuable services such as housework or lawn work are not counted. GDP doesn't measure how income is distributed in a country, and GDP isn't necessarily a measure of happiness.

Questions To Master

[If you do the Group Activity (GA) first, you will have a much easier time answering these questions.]

1. Define **Gross Domestic Product (GDP).** _____

_____

_____

2. How is **per capita GDP** different from GDP? _____

_____

_____

3. Suppose country X produced only the following goods during 1991. Assume that the population of country X is 20 people.

Good	Number Produced	Price Each	Revenues
Shoes	120	$20	
Shirts	100	$12	
Shovels	160	$10	
Books	200	$ 8	

   a. What is the 1991 GDP of country X? _____
   b. What is the 1991 **per capita** GDP of country X? _____

4. Suppose that in 1992 country X (above) produced the same number of goods, but prices increased as follows: Shoes – $30, Shirts – $14, Shovels – $15, and Books – $10.
   a. What is the 1992 GDP? _____
   b. What is the 1992 **per capita** GDP? _____
   c. (Optional) What is the money current (money) GDP in 1992? _____
   d. (Optional) What is the *real* GDP in 1992, using 1991 as the base year?

_____

5. List three reasons why GDP is not a perfect way to measure the standard of living (income) of countries.
   a. _____
   b. _____
   c. _____

Group Activity (GA) – Unit 3

Gross Domestic Product: Measuring the Income of Nations

PLAY DOUGH ECONOMY

ACTIVITY SUMMARY: In this activity your group will simulate a miniature economy. The group will produce goods with play dough and then will calculate the **GDP** and the **per capita GDP.**

GROUP TASK: Your group must complete the following tasks in order to do this GA successfully:

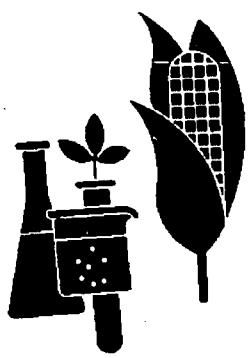
1. Choose a group leader and a recorder. Put their names and the names of group members on the Group Activity Response Sheet. If your teacher wants each student to complete a response sheet, then put your own name as the recorder.

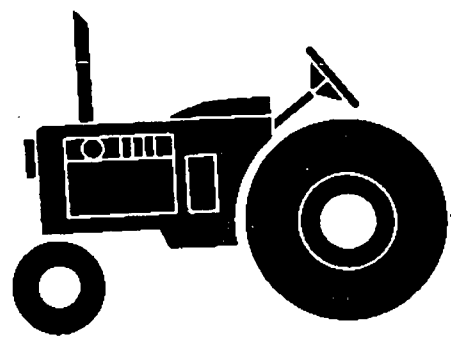
2. Choose an imaginary country for your group. Indicate if it is a high-income, middle-income, or low-income country. Then discuss and give logical answers to questions 3 and 4.

3. After you have completed questions 1 through 4, your teacher will give each group some play dough. Your group will be given about ten to fifteen minutes to produce the goods from your country that you listed in question 3. You are not competing against other groups, so don't hurry so much that you produce sloppy products. Use small amounts of play dough to make each product. *Each group member must participate in the production.*

4. After you have produced your country's products, record the Play Dough Production Data. (Estimate a price for each kind of good you produced.) Then complete questions 5-7.

5. Your group leader should report your country's GDP data to the class.





Group Activity Response Sheet – Unit 3

Leader _____ Recorder _____

Group Members _____

_____

1. What country does your group represent? _____

2. Is this country considered a **high-income, middle-income, or low-income** country?

_____

3. List at least four products that are produced by your country.

_____

_____

4. Give two basic reasons why your country might **specialize** in the production of these particular products.

Play Dough Production Data

Type of Good	Number Produced	Price	Revenues
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

5. What is your country's (group's) GDP? _____

6. What is your country's (group's) "population?" _____

7. What is your country's **per capita GDP?** Show your math. _____

Individual Project (IP) – Unit 3

Gross Domestic Product: Measuring the Income of Nations

ANALYZING DATA TABLES

PROJECT DESCRIPTION: In this project you will analyze data tables that list the per capita GDP of different countries. You will label each country as either high-income, middle-income, or low-income. Then you will answer questions about one low-income country.

TASKS TO COMPLETE:

A. Choose a continent or geographical region to investigate. (Your teacher may assign this.) You will receive a blackline map of the continent.

B. Neatly print the name of each country in ink on the map. You may use your text, encyclopedia, or other reference books to help you.

C. Your teacher will give you some data tables. Use these tables to classify the countries in the continent into three groups, based on per capita GDP. Use the following levels to classify the countries:

Per Capita GDP	Classification
$0 to $499	Low-income Country (LC)
$500 to $4,999	Middle-income Country (MC)
$5,000 and above	High-income Country (HC)

Using colored pencils, color each country on your map based on its per capita GDP classification. For example, all LCs should be one color, all MCs one color, and all HCs one color. Be sure you put the color code in the map's legend.

D. Choose one LC country to investigate. Answer the following questions on a piece of paper. (Use a reference book to help you.)
1. What is the name of the LC?
2. What is the location? (longitude and latitude)
3. What are some of the LCs natural resources?
4. What is the climate of the LC? How does the climate affect the goods and services produced in this LC?

E. Write a paragraph explaining why you think the people of this LC have such a low per capita GDP? In other words, why are many of the people in this country poor?

F. (Optional) Write a paragraph explaining the reasons why you would or would not like to live in this LC.

G. (Optional) Complete more color coded maps using other types of data. For example, create a color coded map showing life expectancy at birth data. You will have to decide how to break down the data into different color categories.

Test of Unit 3 Concepts

1. Define Gross Domestic Product (GDP). _____

_____

_____

2. How is *per capita* GDP different from GDP? _____

_____

_____

3. Suppose country Y produced only the following goods during 1991. The population of country Y is 30.

Good	Number Produced	Price Each
Pants	100	$20
Hammers	50	$10
Telephones	80	$20
Tables	20	$50

   a. What is the GDP of country Y? _____

   b. What is the per capita GDP of country Y? _____

4. Country Z has a GDP of 20,000 and a population of 100. Country A has a GDP of 12,000 and a population of 50. Which country has the higher *per capita* GDP? (Show your work on the back.) _____

5. List three reasons why GDP is not a perfect way to measure the income of countries.

   a. _____

   b. _____

   c. _____

6. Name three countries that are low-income countries (LCs). LCs have a per capita GDP from $0 to $499.

   a. _____

   b. _____

   c. _____

UNIT 4

Productivity: The Key to Increasing the Wealth of Nations

Teaching Instructions

Teaching Instruction — Unit 4

Productivity: The Key To Increasing the Wealth of Nations

Unit Overview

In this unit students learn that increasing productivity is the key to increasing the wealth of nations. Students examine two fundamental ways to increase productivity: investments in new capital/technology and investments in education/ training.

Teaching Objectives

Students will:

1. Explain that wealthy nations produce many valuable goods and services, while poor countries do not.
2. Define and apply the concept of productivity.
3. Explain how technology and education/ training can increase productivity.
4. Avoid errors in thinking about why nations are wealthy or poor.
5. State how different levels of education/ training affect income levels of nations.

Teaching the Economic Concepts

Below are some of the key points to emphasize as you teach this unit.

Wealth Comes From Production: This is a simple, but crucial concept to stress. Goods and services come into existence only through production. Nations become wealthy only as they become proficient at producing valuable goods and services.

Increasing Productivity: To become proficient at producing valuable goods and services, nations must increase their productivity. This comes about primarily through the application of new forms of technology. However, improving the education and training of workers is also an important way to increase productivity. This is especially true in today's world, where sophisticated manufacturing processes require better educated employees.

Explain to students that one can increase productivity by getting more output from the same inputs, or by getting the same output from fewer inputs. Emphasize that increasing productivity helps nations become more efficient, thereby conserving scarce productive resources.

Errors in Thinking that Students Sometimes Make: These three errors in thinking are common among adults, not just students. It is important to discuss them with your class.

Error #1: "When one country becomes wealthier another country must become poorer." A common error originates from the belief that there is a winner and a loser whenever a voluntary trade is made. As we learned in Unit 2, both parties benefit from voluntary trade, otherwise the trade would not take place. For example, when a wealthy nation sells manufactured goods to a poorer nation in exchange for natural resources *both* nations benefit. There is no exploitation in such a transaction. The poorer nation has not been made poorer. Through trade, all nations can increase their per capita income simultaneously.

Error #2: "Countries are poor mainly because they lack natural resources." The text of the BI makes it clear that having abundant natural resources is not a prerequisite of high per capita income. Highly motivated and educated individuals operating in an environment of economic and political freedom will enable a nation to prosper and grow, even if the nation does not possess abundant natural resources. Former Soviet President Mikhail Gorbachev echoed this

truth when he said: "The Soviet Union is suffering from a spiritual decline. We were among the last to understand that in the age of information technologies the most valuable asset is knowledge, which springs from individual imagination and creativity. We will pay for our mistake for many years to come."[1]

Error #3: "A large population causes a country to be poor." The issue of population and economic growth is a complex one. At the middle school level, it is sufficient to show that a dense population does not necessarily mean low-income and poverty. The fundamental concept to emphasize is that people are **producers**, not just consumers. It is true that young children are not very productive, and consume more than they produce. However, as adults they are a valuable and scarce economic resource – labor. In the long run, the increased productivity, income, and savings generated by people have consistently far outstripped the increased consumption needs of a growing population.

Looking Ahead to the Next Unit

In the next unit your students will learn about the different types of economic systems, and how each answers fundamental questions that every society faces. Students will investigate which kind of economic system best enables nations to increase productivity and wealth.

Teaching Suggestions

Basic Instruction (BI):

1. If time permits, invite a local businessperson to share how his or her business attempts to increase productivity.

2. The video "A Key to Productivity," from the *Give and Take* series is excellent for introducing the concept of productivity to middle school students.

Group Activity (GA):

1. Allow five minutes to work on the Productivity Worksheet. Be sure that each student does his or her own work.

2. Provide calculators for each student in the second round.

3. As in the other GIs, it is best if each member of the group completes a Productivity Worksheet.

4. Point out that in Round 1 an accountant's productivity was especially a function of **human capital** (what math skills, including speed and accuracy, the student possessed.) In Round 2, **technology** was more of a factor.

Individual Project (IP):

Part I

1. The abbreviations/words mean the following:

£ – pounds

Circa (c) – about or around

WP – word processing

A Level – advanced level high school exam. One must receive a good grade in two or three A Level exams in specific subject areas to enter a university.

O Level – an ordinary high school exam. A passing grade in five or more Level exams is roughly equivalent to a high school diploma in the United States

EC – European Community (Common Market)

CV curriculum vitae – a resume that one submits when applying for a job

K – thousand

PR – Public Relations

2. To compute pounds to dollars multiply the exchange rate by the number of pounds. For example, if the rate for a pound quoted in dollars is $1.70, then one pound is worth $1.70. A job paying 12,000 pounds would be equivalent to 12,000 x $1.70 = $20,400. Explain that this rate changes daily, and over a period of time can fluctuate significantly.

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1 Quoted in George Gilder, "Freedom and the High Tech Revolution," *Imprimis*, Vol. 19, No. 11 (November 1991), p. 1.

Part II

1. Show your students examples of color coded maps done by previous classes.
2. In Part II it works best if students use the region of Asia, which has a wide variety of educational and GDP levels.
3. Invite someone from another country to visit your classroom and share how students are educated in his or her country.

Required Materials :

1. Calculators for each student (GA).
2. The classified advertisements from a newspaper. The Sunday edition usually is best for this (IP).
3. Blackline masters of the world, regions, or continents (IP).
4. Data Tables from Appendix A (IP).
5. Colored pencils or crayons (IP).

Curriculum Materials for Reinforcing Economic Concepts

1. "Where Do Jobs Come From?" and "A Key to Productivity," Programs 5 and 6 in the *Give and Take* video series.

Answers to Questions in Unit 4

Answers to Questions to Master Worksheet

1. The basic economic reason is that wealthy nations produce (per capita) more goods and services.

2. Productivity = Output/Input

3. a. Corn
   b. land, water, labor, capital equipment (plow, combine, etc.),
   c. 52 bushels per acre
   d. Anything greater than 52 bushels per acre would be an increase in productivity
   e. Possible answers: better seeds, better equipment, more knowledge from training/education, harder work, installation of an improved irrigation system, etc.

4. a. False
   b. False
   c. False

Answers to Group Activity Response Sheet

1. Service

2. Skilled labor, office equipment, land, buildings, etc.

3. Answers will vary.

4. Answers will vary. Multiply the average number correct in Question 3 by 12 (if the set time is five minutes).

5. By using improved technology (calculators).

6. Workers must have the knowledge and skills necessary to use a computer effectively. Just having capital is not sufficient.

Productivity Worksheet 1:

1. 172
2. 265
3. 18,859
4. 4,094
5. 53.94
6. 259.56
7. 232.56
8. 804,788
9. 381.57 or 381 R 16
10. 18.67% or .1866
11. 583.85 or583 R 6
12. 288.91 or 288 R 75
13. 2,856
14. 26,979
15. 10,812

Productivity Worksheet 2:

1. 206
2. 260
3. 18,767
4. 3,196
5. 48.72
6. 303.36
7. 202.12
8. 718,746
9. 406.23 or 406 R 6
10. 16.25% or .1625
11. 488.79 or 488 R 62
12. 268.85 or 268 R 71
13. 2,834
14. 25,527
15. 10,812

Answers to Individual Project Worksheet

Part I: Examining Newspaper Classified Advertisements

A. The Guardian Worksheet

1. £ – pound, Circa (c.) – around or about, WP – word Processing, A Level – refers to a series of tests (see Teacher Instructions), EC – European Community, CV – curriculum vitae (resume), K – thousand, PR – public relations

2. Answers will vary.

3. Students should notice that jobs with higher salaries typically require more valuable skills.

4. Individuals acquire skills through education and training.

B. Classified Advertisements Worksheet

a. Jobs with higher salaries typically require higher levels of education.

b. Jobs with higher salaries typically require more valuable skills.

c, d, e. Answers will vary. Emphasize that to get a good job, education and training are more essential today than ever before.

Part II: Comparing Education Levels and GDP

A. Education and GDP Worksheet

1. Students will notice that countries with very low percentages of Secondary Education attainment tend to have low levels of GDP/income.

2. It is difficult because education requires scarce productive resources. Also, in poorer countries people may not value education as much as in wealthier countries. For example, parents sometimes want their children to help farm instead of getting a better education.

B. Comparing Education and Levels of GDP of a Continent or Region

1. & 2. Self explanatory

3. Students should see a positive correlation between education and GDP.

Answers to Test on Unit 4 Concepts

1. The basic economic reason is that Zaire does not produce as many valuable goods or services, per capita, as Switzerland.

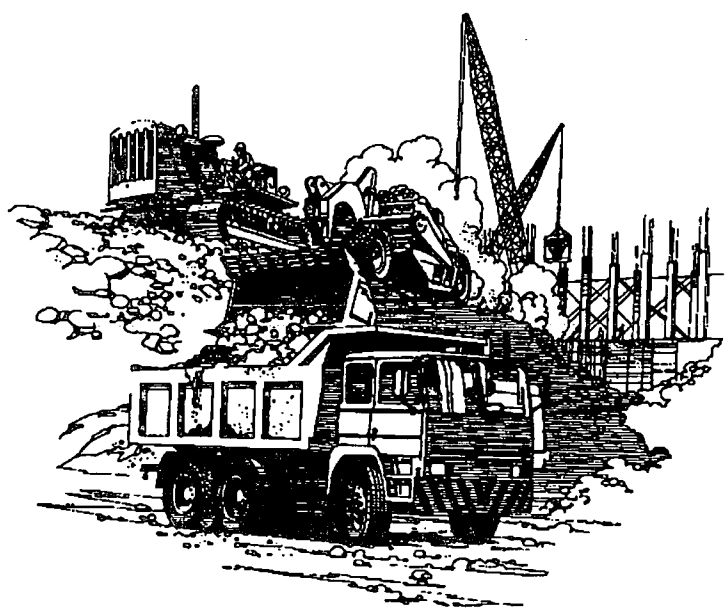
2. Productivity = Output/Input

3. Juan would increase his productivity if he produced more than 10 bowls a day with the same or less productive services.

4. a. More capital
   b. Better technology
   c. Better education and training.

5. a. False
   b. False
   c. True

6. The mechanic has more skills. Skilled labor is more scarce (and more valuable) than unskilled labor.



UNIT 4

Productivity: The Key To Increasing the Wealth of Nations

Student Handouts

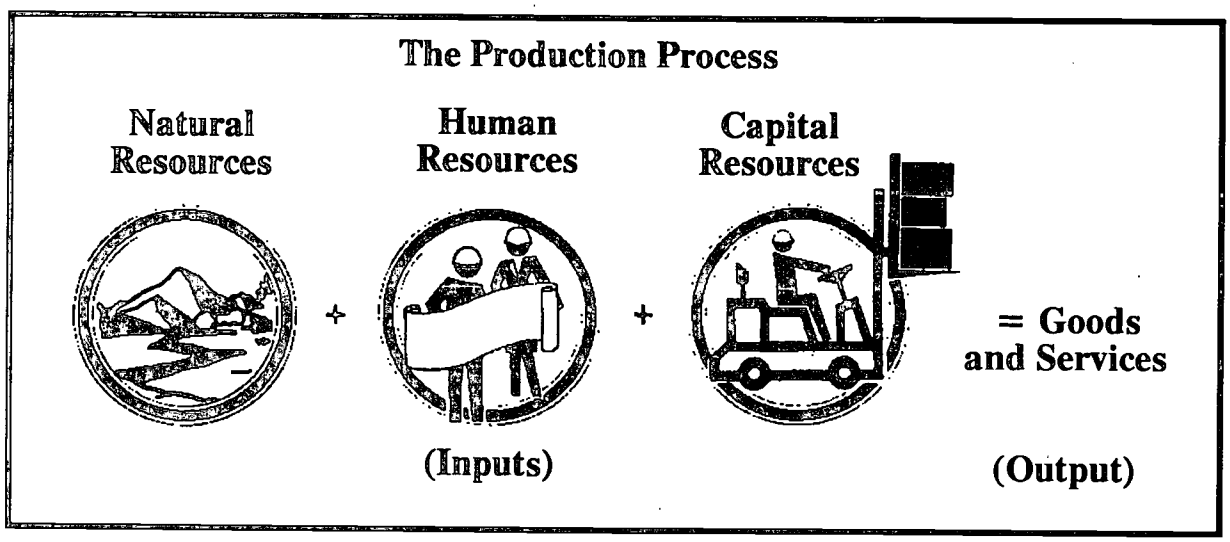
Basic Instruction (BI) – Unit 4

Productivity: The Key To Increasing the Wealth of Nations

In Unit 3 we learned that some countries have a much higher standard of living (per capita GDP) than others. Why is this true? Why do the citizens of some countries enjoy the use of many goods and services, while citizens in other countries do not? In this unit we will begin to investigate this very important question.

What Makes a Country Rich or Poor?

People in countries everywhere want goods and services. However, in Unit 1, we learned this simple but important truth – we live in a world of **scarcity**. The goods and services that people want are not freely available – they must be **produced**. The problem all countries face is deciding how best to use their scarce **productive resources** to produce goods and services. Figure 4-1 illustrates the productive process.



The basic economic reason why wealthy countries have a higher per capita standard of living is that they produce many valuable goods and services. The basic economic reason why some nations are poor is that they do not produce many valuable goods or services. Why is this? To understand the answer to this question we must examine an important economic concept – productivity.

Increasing Productivity: How to Get a Higher Standard of Living

Economists call the goods and services that are produced the **output** of production. The scarce productive resources are the **inputs**. **Productivity** measures how much output is produced relative to the inputs used. It is expressed as a ratio:

$$\text{Productivity} = \text{Output/Input}$$

Increasing productivity means getting more output from the same inputs. (Another way of saying this is getting the same output from less inputs.)

Here's a simple example. Suppose that a shoemaker using hand tools can make one pair of shoes a day in his small shop. His productivity is one pair of shoes (output) per day (labor input). If the shoemaker buys a new machine that enables him to produce two pairs of shoes a day, this doubles his productivity. The shoemaker's production is now more efficient (productive), since more goods (shoes) are produced in the same amount of time (one day). Countries that have high levels of productivity have high standards of living. People have many goods and services, health care is good, and there is a high life expectancy.

Ways to Increase Productivity:

There are several basic ways to increase productivity and help raise standards of living.

1. *Increased Amounts of Capital:* To achieve high levels of productivity, workers must have an adequate supply of capital. A farmer using a tool such as a hoe is more productive than a farmer using only his hands.

2. *Improvements in Technology:* Improvement in technology is probably the most important factor in increasing productivity. A farmer who uses a tractor is much more productive than a farmer who uses only a hoe, even if the farmer using the hoe works a lot harder.

3. *Improvement in the Quality of Labor:* Labor that is better trained and educated is more productive that unskilled labor. The increase in skills that one gets from education and training is called **human capital.** By being in school, you are increasing your human capital, and therefore your productivity.

The key idea for you to understand is this: *In order to attain a higher standard of living for their people, poorer countries must increase their productivity.*

Errors in Thinking that Students Sometimes Make:

There are several errors in thinking that students often make when studying why nations are rich or poor. Some of these are discussed below.

Error #1: "When one country becomes wealthier, another country must become poorer."

If one country becomes wealthy, this does not cause another country to become poor. In past history this may have been true to a large extent. Nations and empires often became wealthy by using force to take productive resources and goods from other nations. Indeed, cities used to be built with high walls around them for protection against invading armies. Today we know that countries can become wealthy without taking the wealth of other countries. By specializing and trading, all countries can grow together.

Error #2: "Countries are poor mainly because they lack natural resources."

It is certainly true that having abundant natural resources can help a nation to become wealthy. A good example is Saudi Arabia, which has gained much wealth because of its huge oil reserves. But it is a mistake to think that having many natural resources is *necessary* for a country to become wealthy. Hong Kong, Taiwan, Singapore, and Japan have few natural resources, yet have relatively highstandards of living. Brazil and the former Soviet Union have much lower standards of living, even though they have many valuable natural resources.

Error #3: "A large population causes a country to be poor."

A large and rapidly growing population certainly can be a problem for poorer countries. However, it is a mistake to think that a large population by itself makes a country poor. Singapore, Japan, and Hong Kong are very crowded and yet are very prosperous. Jordon, Ethiopia, and Brazil are much less crowded, and yet are much poorer.

KEY POINTS TO REMEMBER!

1. The basic reason that countries have a high standard of living is that they produce (per capita) many valuable goods and services. Poor countries do not produce (per capita) many valuable goods and services.

2. Increasing productivity means producing more goods and services from the same amount of scarce productive resources. Countries must increase their productivity in order to attain a higher standard of living.

3. If one country becomes wealthier it does not mean that some other country has become poorer. Countries can grow and become wealthier together.

4. Countries that have large populations and that lack natural resources are not necessarily poor.

Questions To Master

1. What is the basic economic reason why some nations are poor and some nations are wealthy?

_____

_____

_____

2. Define **productivity.** _____

3. Mr. Navarro owes a small corn farm in Mexico. He gets 52 bushels of corn from each acre.

   a. What is the **output** of this farm? _____

   b. What are some of the **inputs** Mr. Navarro uses in his corn production?

   _____

   c. What is the corn **productivity** of his farm? _____

   d. Give a numerical example of an **increase in productivity** on this farm?

   _____

   e. Describe three specific ways that Mr. Navarro could increase the **productivity** of his corn production.

   (1) _____

   (2) _____

   (3) _____

4. True or False?

   a. "When one country becomes wealthier, another country becomes poorer."

   _____

   b. "Countries are poor mainly because they lack natural resources."

   _____

   c. "A large population causes a country to be poor."_____

Group Activity (GA) – Unit 4

Productivity: The Key To Increasing the Wealth of Nations

ACCUSERVE, INC.

SITUATION: It is 1995, and your accounting firm, AccuServe, Inc. is trying to secure a large contract from Saudi Arabia, a wealthy Middle East oil producing country. You have just received the following letter from Ali Nabobi, Minister of Financial Services in Saudi Arabia.

Dear Sir or Madame:

Our country is accepting bids for a three million dollar accounting contract. Because of the large size of this contract, we must get the best, most productive accounting firm possible. Firms from around the world are competing for this business. To help us in our selection process we must get as much information as possible about your firm's capabilities. Please have your accountants complete the attached productivity worksheets and return them to us. Of course, all information will be kept strictly confidential. We look forward to receiving these worksheets, and wish you the best success in winning this lucrative contract.

Sincerely yours,

Ali Nabobi

Ali Nabobi

Your Group Task:

1. Choose a president for your firm.

2. Each accountant (including the president) in your group must have a pencil and an Accounting Worksheet.

3. *Absolutely no helping each other in this exercise.* Each accountant must do his or her own work.

4. Do not start until your teacher tells you. *You will have only a set time to finish.* Do as many problems as you can in the set time. Remember, only *correct answers will count* when you compute your productivity. Do your best work!

5. You will do a second round of computing. Your teacher will give you further directions how to do this next round.

Productivity Worksheet

1. Does your accounting firm provide a good or a service? _____

2. List five productive resources needed by a real accounting firm.

_____

_____

Production Data

Accountant Name	# Correct Round 1	# Correct Round 2
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Correct	_____	_____

3. For each round, compute the average number correct per accountant.

4. For each round, compute the *per hour* productivity of the "average accountant" in your firm. (Use answer to question 3 to help you.)

Round 1 Productivity _____

Round 2 Productivity _____

5. How was productivity increased in Round 2? _____

6. Computers make workers more productive. However, would workers be productive if they did not have the knowledge or skills necessary to use the computer? Explain.

_____

_____

Productivity Worksheet 1

Name_____

Round decimal problems to the nearest hundredth.

1. 25
62
38
+47

2. 68
59
96
+42

3. 68113
-49254

4. 10062
- 5968

5. 29% of 186 =

6. 42% of 618 =

7. 342
x .68

8. 962
x 874

9. $28\overline{)10{,}684}$

10. Change 28/150 to a percent

11. $79\overline{)46124}$

12. $82\overline{)23691}$

13. 28 x 102 =

14. 69 x 391 =

15. 106 x 102 =

Number Correct_____

Productivity Worksheet 2

Name_____

Round decimal problems to the nearest hundredth.

1.
$$\begin{array}{r} 52 \\ 61 \\ 37 \\ +56 \end{array}$$

2.
$$\begin{array}{r} 73 \\ 56 \\ 94 \\ +37 \end{array}$$

3.
$$\begin{array}{r} 76224 \\ -57457 \end{array}$$

4.
$$\begin{array}{r} 10153 \\ -6957 \end{array}$$

5. 28% of 174 =

6. 48% of 632 =

7.
$$\begin{array}{r} 326 \\ \times .62 \end{array}$$

8.
$$\begin{array}{r} 942 \\ \times 763 \end{array}$$

9. $26\overline{)10{,}562}$

10. Change 26/160 to a percent.

11. $78\overline{)38126}$

12. $84\overline{)22583}$

13. 26 x 109 =

14. 67 x 381 =

15. 102 x 106 =

Number Correct _____/15

Individual Project (IP) – Unit 4

Productivity – The Key to Increasing the Wealth of Nations

Project Description:

There are two parts to this IP. In Part I, you will examine job openings in the classified sections of an English newspaper, The Guardian, and a newspaper of your choice. You will study the relationship of job skills and wages.

In Part II, you will compare the educational levels of people living in certain countries with the GDP of these countries.

PART I: EXAMINING NEWSPAPER CLASSIFIED ADVERTISING

A. Examine the page of classified advertisements from The Guardian. Then answer the questions on the "The Guardian Worksheet." You must know the current exchange rate between the pound and the dollar to complete the worksheet. The rate is listed in the financial pages of major newspapers.

B. Next, examine the classified advertisements in a Sunday newspaper in your city or region. Cut out six advertisements for jobs that represent three different income levels as defined below. Cut two advertisements for each income level. Try to choose advertisements that list some educational and skill requirements for the job.

Low-Income	$0	to	$12,000 per year
Middle-Income	$12,001	to	$30,000 per year
High-Income	Over $30,000 per year		

(Some classified advertisements only give per hour wage rates. Figure a yearly salary by assuming a 40 hour work week, and 52 working weeks in a year. Show your math on the back of the worksheet.)

Attach the six advertisements to the "Classified Advertisements Worksheet." Then describe the required education and training and the necessary job skills. If an advertisement doesn't list the specific education/training requirements or the specific skills, list what you think the requirements and skills would be. To describe the necessary education and training, use the following categories:

Less than High School Education Required
High School Education Required
Some Specialized Training Beyond High School Required
College/University Degree Required
Advanced Degree Required

Answer questions a. through e. about these classified advertisements.

BRITISH PORTS FEDERATION

COMMUNICATIONS MANAGER

c £20,000 + benefits

An exciting, London-based opportunity for a highly motivated graduate with a Public Affairs background to develop the communications of one of the country's leading trade associations.

My client, the British Ports Federation, needs effective communications with its members, the UK Government and Parliament, all the institutions of the EC and the media.

The successful candidate will possess the ability to exercise sound judgement on a wide range of sensitive policy issues, significant organisational abilities and proven communication skills, both written and verbal. Knowledge of another EC language would be useful.

The Communications Manager will work closely with, and report directly to, the Managing Director.

Please call or write to Peter Childs

PRIVY COUNSEL

Recruitment into Public Affairs

14 South Molton Street London W1Y 1DE 071-495 4944

Hulton Picture Company

PICTURE ADMIN. ASSISTANT

Must be educated to A level or above, familiar with computers, good communication skills. From £8,000 according to experience. Contact Adele Blinston on 071-266 2660 by Wednesday 20th February.

DESIGN CONSULTANCY NEAR WATERLOO

is looking for a well presented, enthusiastic

RECEPTIONIST

Age 18-25, varied range of duties inc. WP typing. Monarch SB. And greeting clients. Common sense is essential for this busy position.

Salary £11,000.

Tel: Sandra/Paula
071-928 2344

Secretary

Institute of Finance and Accounting

Salary c£13,100

London Business School

Sussex Place
Regent's Pa
London
NW1 4SA

Telephone
071-262 5050
Facsimile
071-724 7875

London Business School needs a confident, bright person, educated to 'A' level and with some work experience in a finance/business environment, to provide secretarial support to 3 academics and assist in the running of the Risk Measurement Service, which provides information about UK equities to investors and financial managers.

Secretarial duties will include preparation and distribution of teaching materials, liaison with postgraduate students and PA work. You will also be responsible for updating the client database for the School's Risk Measurement Service, and dealing with telephone enquiries.

The successful applicant will have an excellent telephone manner, the ability to work to deadlines, experience of WordPerfect and a wide knowledge of software including at least 2 of the following: Harvard Graphics, Lotus 1-2-3 and DBase IV.

To apply for this post please send your CV to Ms Lyndon Hoare, Personnel Manager, at the address above by 26 February 1991.

No agencies

SECRETARIAL ASSISTANT

The BTUC is the secretariat of a federation of trade unions which represent staff in British Telecom.

WP skills (will cross train) and a good grounding in basic office routines are essential. We are seeking someone bright with an affable personality, who is also reliable and meticulous in his/her work.

Other duties include the ordering and control of stationery stocks and assisting the PA to the BTUC National Secretary in such tasks as setting up meetings and preparing committee briefs.

The Starting salary is £11,871 plus £2,260 London Weighting and annual leave entitlement is 25 days.

For further details and an application form, please contact Donna Mills at the BTUC on 071-628 0626 or write to us at 14-15 Bridgewater Square, London EC2Y 8BS. The closing date for the return of applications is Friday, February 22, 1991.

GLASGOW COLLEGE
A SCOTTISH POLYTECHNIC

EDUCATION OFFICER

SALARY UP TO £17K

The PUBLIC RELATIONS UNIT requires a new team member with superb organisational skills and experience of the range of PR techniques employed in Higher Education.

Involving frequent travel and public speaking engagements throughout Scotland, you will be expected to liaise with schools, mature students, careers offices and parent teacher organisations. You will already possess a portfolio demonstrating your abilities in copywriting, print-buying and advertising.

If you are a confident, articulate and intelligent person with good self-presentation skills, coupled with the ability to sustain long periods in a high-pressure environment, then we would like to hear from you. A clean driving licence is essential.

Application form and further details may be obtained from the PERSONNEL DEPARTMENT, GLASGOW COLLEGE, COWCADDENS ROAD, GLASGOW G4 0BA (Tel: 041-331 3817) to be returned by MONDAY 4 MARCH 1991.

THE NATIONAL TRUST

SECRETARY TO THE HOUSEKEEPER

circa £11,500 pa

The Housekeeper is the conservator responsible for preventative conservation at 200 historic house and for training staff in day-to-day care of their contents.

She is looking for an experienced secretary with audio skills, who is an efficient administrator, meticulous record-keeper, able to compose his/her own letters and who enjoys working as part of a team but with little supervision.

The Housekeeper is often away from the office 3 days a week so this position offers scope for initiative and considerable responsibility.

If you'd like to apply, please send a stamped addressed envelope for an application form and further details to:

Martine Postle, Personnel Officer
The National Trust, 36 Queen Anne's Gate
London, SW1H 9AS

Closing date for completed application forms is Friday 15 March.

Filton College

Filton Avenue · Bristol · BS12 7AT
Tel: Bristol (0272) 694217 Fax: (0272) 236450

PRINCIPAL

Salary Group E - Circa £40,000

The Governors of this successful college are seeking applications from suitably qualified and experienced persons for this senior management post from 1 September 1991.

Filton College serves the needs of the local community for further education, and training. With 1,100 full-time students and approximately 8,000 part-time students, the College is large enough to offer a rich variety of education and training courses and programmes, but small enough to foster an environment in which individuals retain their own identity.

You will need:

- A sound knowledge of the education scene
- High level management and leadership skills
- Exceptional strategic planning and development ideas
- Proven qualities of sound business and entrepreneurial skills
- The ability to deliver, maintain and promote a quality provision responsive to changing needs and demands.

The Governors are prepared to consider applications from candidates currently outside the educational field, as well as within. For further information, an application form and details of the relocation package contact:

Clerk to the Governors
address as above
Closing date for receipt of applications:-
15 March 1991

SECRETARY/PA

required for Director of established Christian charitable organisation, working with single homeless people. Excellent audio-typing and word processor skills required. A flexible and mature approach to work essential.

Salary c.£15,000 depending on age and experience.

Closing date: 1st March, 1991.

Details and application form from: Providence Row, 50 Crispin Street, London E1 6HQ. (Telephone 071-247 4030).

We are committed to an Equal Opportunities Policy. This organisation is funded by the London Boroughs Grant Committee.

TRAINING SUPERVISOR

c£20,000 +

Age 25 + **CITY**

Leading firm of international lawyers seek a Senior Administrator to assist in co-ordinating and developing the legal training programme for over 400 lawyers.

Experience of managing a small team in an educational, professional or commercial body combined with energy, initiative and excellent organisational and communication skills are essential. Experience in organising training programmes is desirable. Responsibility will also be taken for the supervision of a small team of assistants.

Call Jane Morgan on 071-256 6668.

LOVE & TATE APPOINTMENTS

SECRETARY/ ADMINISTRATOR

Mature and competent person required for small marketing and promotion company (some arts clients). We need someone who is articulate, personable, and enthusiastic, with a systematic approach and an ability to work on own initiativ
The job will entail typing and general secretar
duties as well as client liaison and help w
promotions. WP experience preferable, but fast accurate typing essential. Non-smoking office. Salary c.£11,000.

Send letter plus CV immediately to: Lynne Burton, The Marketing Office, 15/17 Old Compton Street, London W1V 5PJ or fax: 071-734 5304 (no agencies).

The Guardian Worksheet

1. The following abbreviations and words appear in the advertisements. What do you think they mean? Discuss with the class. Write the meanings below.

a.	£ –	e.	EC –
b.	Circa (abbreviated c) –	f.	CV –
c.	WP - –	g.	K –
d.	A Level –	h.	PR –

2. What is the current exchange rate for dollars and pounds? (How many dollars does it take to buy one pound?) _____

3. Identify three different jobs from the advertisements. Then complete the following information about the jobs.

Job Title _____

Salary in Pounds _____ Compute Salary in Dollars _____

Necessary Education _____

Necessary Skills _____

Job Title _____

Salary in Pounds _____ Compute Salary in Dollars _____

Necessary Education _____

Necessary Skills _____

Job Title _____

Salary in Pounds _____ Compute Salary in Dollars _____

Necessary Education _____

Necessary Skills _____

4. Examine these and other jobs in the advertisements. What relationship do you notice between salary and job skills required? _____

_____

5. How do individuals acquire the skills they need for jobs?

_____

_____

Classified Advertisements Worksheet

Name: _____

Classified Advertisements (attach below)	**Education/Training Requirements**	**Necessary Skills**

1.

Yearly Salary_____

_____

2.

Yearly Salary_____

_____

3.

Yearly Salary_____

_____

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	Classified Ads (attach below)	**Education/Training Requirements**	**Necessary Skills**

4.

Yearly Salary_____

5.

Yearly Salary_____

6.

Yearly Salary_____

Classified Advertisements: Answer these questions.

a. What relationship do you see between the job salary and the required education/training requirements?

_____

_____

b. What relationship do you see between the job salary and the required skills?

_____

_____

c. What kind of work or job do you want to do when you are an adult?

_____

_____

d. What education and/or training will you need?

_____

_____

e. What kind of skills will you need?

_____

_____

Individual Project (IP) — Unit 4

Productivity — The Key to Increasing the Wealth of Nations

PART II: COMPARING EDUCATION LEVELS AND GDP

A. Use the "Education and GDP Worksheet." Using Data Tables that your teacher will give you, identify five low-income countries (Per capita GDP less than $500) and five high-income countries (Per capita GDP greater than $5,000).

List the 1988 Secondary School Enrollment Percentages and the GDP per capita incomes for these ten countries. Compute the averages of this data. Then answer the other questions on the worksheet.

B. Your teacher will give you a blackline map of the world, a region, or continent. Use the Data Tables to examine the 1988 Secondary School Enrollment and GDP data.

1. First, using the scale below, color code the map according to the Secondary Enrollment data. Color lightly, using three colors of your own choice.

1988 Percentages of Secondary Enrollment

0% - 40%	—	Low-Enrollment
41% - 70%	—	Middle-Enrollment
Over 70%	—	High-Enrollment

2. Next, examine the GDP data for these countries. On your color-coded map, put stripes in the high-income countries, small dots in the middle-income countries, and crosshatch in the low-income countries. Use the following scale to classify the countries:

Per Capita GDP	Classification
$0 to $499	Low-income country
$500 to $4,999	Middle-income country
$5,000 and above	High-income country

Don't forget to put a map key on the bottom of your map!

3. What patterns or relationships do you see on your map between education levels and GDP? Explain on the back of your map.

Education and GDP Worksheet

Name _____

Low-Income Countries (LCs)	Percent of Secondary Enrollment	GDP
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Average	_____	_____

High-Countries (HCs)	Percent of Secondary Enrollment	GDP
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Average	_____	_____

1. What patterns/relationships do you see in your data? Explain.

_____

_____

2. Why do you think it is difficult raising the educational levels of people living in low-income countries? _____

_____

_____

Test On Unit 4 Concepts

1. Zaire is a poor country. Switzerland is a wealthy country. What is the basic economic reason for this difference?

_____

_____

_____

2. Define productivity. _____

3. Juan produces 10 pottery bowls a day in his pottery shop. Explain what it means for Juan to **increase productivity** in his shop. Give a simple numerical example in your explanation.

_____

_____

_____

4. To raise GDP, nations try to increase productivity. What are three basic ways to increase a nation's productivity?

a. _____

b. _____

c. _____

5. True or False?
   a. If a country becomes wealthier through trade this means that another country has become poorer. _____
   b. A country that does not have many natural resources is a poor country. _____
   c. A large and growing population does not mean that a country will be poor. _____

6. Explain why an automobile mechanic typically earns more than a person who mows lawns for a lawn mowing company.

_____

_____

UNIT 5

Economic Systems: How Nations Organize Their Economies

Teaching Instructions

Teaching Instructions – Unit 5

Economic Systems: How Nations Organize Their Economies

Teaching Objectives:

Students will:

1. Explain the difference between traditional, command, market, and mixed economies.
2. Explain why every country must have an economic system.
3. Explain the behavior of buyers and sellers in a market.
4. Explain how a market price is determined.
5. Explain the effects of a price floor and a price ceiling.
6. Identify and explain different economic and social goals.

Teaching the Economic Concepts:

Below are some of the key concepts to emphasize as you teach this lesson.

1. **The Difference Between the Various Types of Economic Systems** – Stress that while no country's economy is purely traditional, command, or market, nevertheless one of these types of systems will predominate. Economic systems are necessary because scarcity forces every society to decide what, how, and for whom to produce.

2. **Which Economic System is Best?** – Most agree that economic systems that stress a market approach do the best job in preserving individual freedom and raising standards of living. It is important to realize that in a market system one does not have the freedom to harm or defraud individuals. Even in a "pure" market system there are laws against theft, cheating, and fraud. Also, proponents of a market system admit that there is a proper roll for government in providing for public goods like national defense and a court system, correcting for the harmful spillover effects of pollution, and making sure there is competition in the marketplace. Opponents of the market system point out that there is more income inequality in market systems. Market system proponents counter that even in command economies those in power invariably have far more than the average citizen.

3. **The Behavior of Buyer and Sellers in a Market** – Students understand that in a market buyers try to buy goods and services at the lowest possible price. Sellers try to sell at the highest possible price. Point out that as buyers and sellers interact in a market, buyers compete against other buyers as they try to purchase goods and services. Sellers compete against other sellers. While it is true that buyers haggle with sellers to negotiate the best possible price, buyers do not compete against sellers.

4. **How a Market Price is Determined** – Market prices are determined by the interaction of buyers and sellers in the market place. As buyers attempt to buy at low prices and sellers at high prices, a sort of compromise price is determined, called a market price, or equilibrium price. Buyers who insist on a very low price will lose out to other buyers who will accept somewhat higher prices. Sellers who insist on very high prices will lose out to other sellers who will accept lower prices. A key point to emphasize is that no authoritative agency sets the market price – it occurs naturally as buyers and sellers interact. The natural market price equalizes the amounts that sellers want to sell and the amounts buyers want to buy – automatically, without the aid of government.

5. **The Affect of Price Floors and Price Ceilings** – When governments impose price controls on markets there are predictable results. A mandated price set above the true market price, called a price floor, will cause sellers to want to sell more and buyers to buy less. The result is a surplus. A mandated price set below the true market price, called a price ceiling, has the opposite result. Buyers will want to buy more, but sellers will want to sell less. The result is a shortage. Economists generally agree that price controls misallocate a country's productive resources, and therefore should be avoided.

6. **Economics and Social Goals**—The important thing to stress is that these goals often contradict. In public policy decisions there are usually trade-offs between conflicting goals. Point out that a society's emphasis on certain goals will change over time. Currently, environmental protection is a goal that is receiving much emphasis. In the early 1980s, price stability was emphasized, since the late 1970s experienced much inflation.

Teaching Suggestions:

1. Review the BI with your students.
2. Study the teacher instructions, "How to Play the Corn Game." Then review game directions with your students using "The Corn Market Game" Student Instruction Sheet. It takes about 45 minutes to play and debrief the game, so you may want to review the directions in the previous class period.

Required Materials:

1. You will need to prepare various materials for the GI—"The Corn Market Game." They are listed in the following How to Play the Corn Market Game directions sheet.
2. Blackline master of the nations of the world, pre-1990.

Extending the Unit:

1. Give and Take video Program 9: "Market Prices: Supply and Demand," reinforces the concepts presented in this unit.
2. Return to Mocha, an animated video program with teaching activities, emphasizes the different types of economic systems and different economic/social goals.

How to Play the Corn Market Game

Overview:

The Corn Market Game is an economic education "classic" that will give your students an intuitive understanding of how prices are determined in a market economy. It is also a motivational activity that your students will enjoy very much. You will divide your class into two groups representing buyers and sellers of corn. The groups interact with each other during several trading rounds. After each round students calculate how much "profit" they have made. After several rounds an overall winner is determined. The game is followed by a debriefing that highlights important economic concepts.

Time Required:

Approximately one class period

Materials You Will Need:

- 32 Buy and 32 Sell "Corn Cards." Use different colored three inch by five inch cards for buyers and sellers. Table 5-1 shows how many cards to make for each price. Follow these directions exactly.
- Corn market Score Sheets for each student (Use one color for buyers and one color for sellers. If different colored paper isn't available, sellers can wear a paper armband to distinguish them from buyers.)
- Transparency of the Corn Market Tally Sheet
- Overhead Projector

Specific Teaching Instructions:

Carefully review these instructions before beginning the game.

1. Read "The Corn Market Game Student Instruction Sheet" out loud with your students. Make sure students understand the game rules before playing.

2. At the beginning of each round give one seller card to each seller and one buyer card to each buyer. Put remaining buyer and seller cards in piles at opposite sides of the trading area. After each trade students must discard their "used" card and draw another. **Make sure students draw the top card from each pile, and do not peek before drawing.**

3. Place the overhead with the Corn Tally Sheet near the "trading floor." After each trade sellers only will come to you and tell the trade price they negotiated (not the price on their Corn Cards!). Near the appropriate price on the Tally Sheet make a small "x" for each transaction, but do not turn on the overhead during the first round. After you have recorded about 25-30 trades stop the round.

4. Remind students that even though buyers and sellers negotiate a per bushel price, each trade represents ten bushels of corn. End of round calculations must be based on this quantity. For example, suppose a buyer and seller negotiate a per bushel price of $3.20. If the price on the seller's card is $3, then the seller has a gain of .20 x 10 bushels = $2. If the price on the buyer card is $3.10, then the buy has a loss of .10 x 10 bushels = $1.

5. Make the following changes in subsequent rounds:

a. Beginning with the second round, let students view and discuss the Corn Market Tally Sheet transparency to see the price patterns that developed during trading. Keep the overhead on during subsequent rounds.

b. In the second round, encourage students to make bids out loud. This will increase information and will speed up transactions.

c. In the third round, create a "sob story" about how difficult it is for the poor buyers to buy the corn they need to feed their families. State that the government (you) is putting a price ceiling of $1.80 on corn purchases. It is illegal to sell corn above that price! This will change how the trading proceeds. Buyers will be very eager to buy, but sellers will be very reluctant to sell (and many will not!).

Or, create a "sob story" about how poor farmers cannot make enough to feed their families, etc. Put a government price floor of $3 per bushel on corn. It is illegal to sell below this price! With the price floor sellers will be eager to sell, while buyers will be reluctant to buy.

Questions for Debriefing:

1. At what price was the most corn sold in each round? (Examine data on Corn Market Tally Sheet.)

2. During which round was the spread of prices the greatest? (This almost always occurs during the first round, because more price information is available in subsequent rounds, creating more competition. This competition drives the prices toward a market, or equilibrium price.)

3. Who determined the market price for corn? (No one person. The price was determined by the interaction of buyers and sellers in the marketplace.)

4. Why were some students able to make more profits than others? (They drew "better" cards. They were better traders. They made many trades, each with a small margin of profit.)

5. Who was the "competition" for sellers? (Other sellers.) Who was the "competition" for buyers? (Other buyers.)

6. In what way is calling out prices similar to advertising? (Calling out prices, like advertising, gives information to buyers and sellers.)

7. What is the opportunity cost of continuing to seek a better price? (Giving up the chance to make many trades, students must continually decide if it is worth the time it takes to get a better price. As the game goes on and the market price range narrows, students will discover it is not worth taking a lot of time to find a slightly better price.)

8. How did setting a price ceiling below the market price affect trading? (Sellers were inclined not to sell. Some remained at their desks. The price clustered right at the ceiling price.)

9. How did setting a price floor (above the market price) affect trading? (Buyers were inclined not to buy. Some remained at their desks. The price clustered at the price floor.)

TABLE 5-1
HOW TO ORGANIZE "CORN CARDS"
Follow these directions for making the SELL Cards:

Price on Card	Number of Cards Having This Price
$3.40	2
$3.20	2
$3.00	2
$2.80	2
$2.60	2
$2.40	4
$2.20	4
$2.00	4
$1.80	4
$1.60	4

Follow these directions for making the BUY Cards:

Price on Card	Number of Cards Having This Price
$3.40	4
$3.20	4
$3.00	4
$2.80	4
$2.60	4
$2.40	2
$2.20	2
$2.00	2
$1.80	2
$1.60	2

"BUY" CORN CARDS

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $3.40 a bushel ($34 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $3.20 a bushel ($32 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $3.00 a bushel ($30 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $2.80 a bushel ($28 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $2.60 a bushel ($26 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $2.40 a bushel ($24 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $2.20 a bushel ($22 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $2 a bushel ($20 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $1.80 a bushel ($18 for 10 bushels), then you lose money.

You are authorized to BUY 10 bushels of corn. Pay as little as possible. If you pay more than $1.60 a bushel ($16 for 10 bushels), then you lose money.

"SELL" CORN CARDS

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $3.40 a bushel ($34 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $3.20 a bushel ($32 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $3 a bushel ($30 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $2.60 a bushel ($26 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $2.80 a bushel ($28 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $2.40 a bushel ($24 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $2.20 a bushel ($22 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $2 a bushel ($20 for 10 bushels), then you lose money.

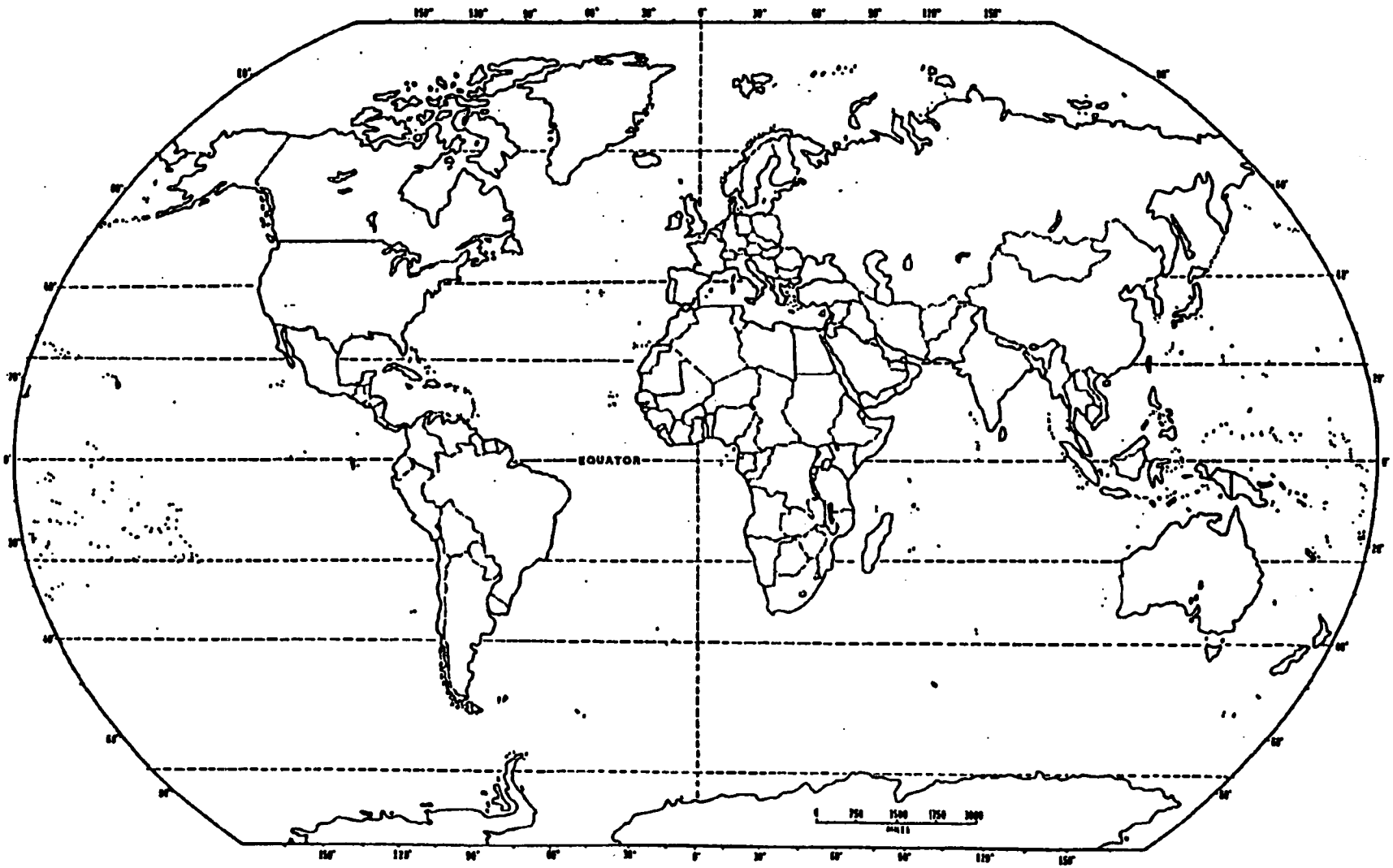
You are authorized to SELL 10 bushels of corn. Get as much as possible If you get less than $1.80 a bushel ($18 for 10 bushels), then you lose money.

You are authorized to SELL 10 bushels of corn. Get as much as possible. If you get less than $1.60 a bushel ($16 for 10 bushels), then you lose money.

CORN MARKET TALLY SHEET

Price Per	Round 1	Round 2	Round 3	Round 4
$3.60				
$3.40				
$320				
$3.00				
$2.80				
$2.60				
$2.40				
$2.20				
$2.10				
$2.00				
$1.80				
$1.60				
$1.40				

WORLD
-POLITICAL-



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Answers To Questions In Unit 5

Answers to Questions to Master Worksheet

1. Every country has an economic system because in every country productive resources are scarce. There are many uses for these resources, but their availability is limited. An economic system is needed to decide how to use these scarce productive resources.
2. What, how, and for whom to produce.
3. Traditional, market, command
4. Command
5. Market
6. Traditional
7. Market
8. Command
9. Prices
10. Traditional
11. Possible answers: freedom, security, growth, efficiency, equity, environmental quality

Answers to Group Activity Response Sheet

Part I

a. IBM computer – market

b. Tickets to the Senior Prom – market, personal characteristics (must be a Junior or Senior), first come first served (true in some schools)

c. VCR repair service – market

d. Camping sites at a state park – market, first come first served

e. Winner of Miss America Beauty Contest – personal characteristics, market (it's expensive to compete!)

f. Welfare payments – personal characteristics, first come first served (to some extent)

g. Tickets to the Super Bowl – market, first come first served, personal characteristics (season ticket holders get first choice, etc.)

h. Entrance into college – market, personal characteristics (good grades, test scores, etc.)

i. A position on the Purdue basketball team – personal characteristics

j. A Chicago Bears sweatshirt – market

k. Money from a bank robbery – force

Answers to Questions to Individual Project

Who Gets the Tickets?

1. The basic economic problem is a scarcity of basketball tickets. There are not enough tickets to satisfy everyone's want for them.
2. Students get all tickets – Personal Characteristics, Market
   Parents and residents get most tickets – Personal Characteristics, Market
   Auction – Market
   First in line – First Come, First Served; Market
   Lottery – Personal Characteristics (those who drew the tickets in the lottery), Market

From Command to Market

Some difficulties of changing from a command to market economy are: initial unemployment, lack of skills for new jobs, inflation (especially as governments cancel price controls of basic foodstuffs), loss of market for products, no "hard" currency to buy imports, difficulty in getting loans to start businesses and purchase new technology, lack of "entrepreneurial" skills and knowledge.

Answers to Test on Unit 5 Concepts

1. What, how, and for whom to produce
2. Market, command, traditional
3. Command
4. Market
5. Traditional
6. Command
7. Market
8. First come, first served, lottery, personal characteristics
9. Prices are determined by the interaction of buyers and sellers in the market place.
10. Freedom, security, justice, environmental quality, growth, equity, efficiency

UNIT 5

Economic Systems: How Nations Organize Their Economies

Student Handouts

Basic Instruction (BI) – Unit 5

Economic Systems: How Nations Organize Their Economies

Scarcity and Economic Systems:

We have learned that all the different countries of the world specialize in the kinds of goods and services they produce. For example, Argentina specializes in producing beef, Israel in producing oranges, and Japan in producing VCRs. But who decides what each country will produce? And who decides how the goods and services will be produced and who will get to use them? The answer to these questions depends on what kind on economic system a country has.

An **economic system** describes how a country's economy is organized. Every country, rich or poor, has an economic system. This is because in every country there is a **scarcity** of **productive resources** (natural resources, labor resources, and capital resources.) This means that there are not enough productive resources to provide all the goods and services wanted by citizens of a country. Because of the problem of scarcity, each country needs an economic system to determine how to use its productive resources.

An economic system must answer these three basic questions:

> **WHAT TO PRODUCE?** (What kinds of goods and services should be produced?)
>
> **HOW TO PRODUCE?** (What productive resources are used to produce goods and services?)
>
> **FOR WHOM TO PRODUCE?** (Who gets to have the goods and services?)

This is true no matter where a country is located or how wealthy or poor a country is.

Kinds of Economic Systems:

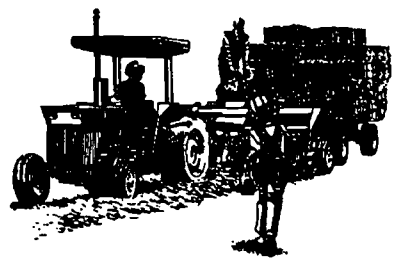
There are three basic kinds of economic systems used to answer the questions of what, how, and for whom to produce: traditional, command, and market systems.

Traditional Economies: In this type of economic system, economic decisions are based primarily on custom and tradition. For example, in African tribal societies the jobs that people have are based primarily on what their ancestors or parents did. In rural India, a persons economic status is still strongly influenced by the caste, or rank, into which the person is born.

Command Economies: In a command system, the government usually owns most of the property, and governmental planning groups make the basic economic decisions. These groups determine such

things as the prices of goods and services and the wages of workers. This kind of economic system has not been very successful, and fewer and fewer countries are relying on it. Poland is an example of a country who is abandoning the command economy. Cuba and North Korea still have command economies, but are beginning to change.

Market Economies: There are many names for a market system, including capitalism, *laissez-faire,* and free enterprise. In a market system most of the resources are owned by private citizens. Citizens can own their own businesses and can keep the profits they earn from them. The important economic questions are not answered by the government, but by individuals themselves as they take part in the economy. For example, the government does not tell people what job they must do. Instead, people have the freedom to make that choice themselves. Likewise, the government does not tell a business what products it must produce and what price it must charge.



When individuals make decisions in a market system they are guided primarily by changing prices. For example, suppose the wage rate for skilled automobile mechanics is very high, say $35 per hour! This high wage indicates that skilled mechanics are in great demand. The high wage provides a strong incentive for individuals to get the training necessary to become a mechanic. Likewise, if a high price for strawberries results in high profits for strawberry growers, this would encourage producers to grow more strawberries. The key idea is that it is the *price* that guides workers, businesses, and consumers, not the government.

Social Goals and Economic Systems

The economic decisions of individuals and governments reflect broad social goals. Economists have identified several of these goals:

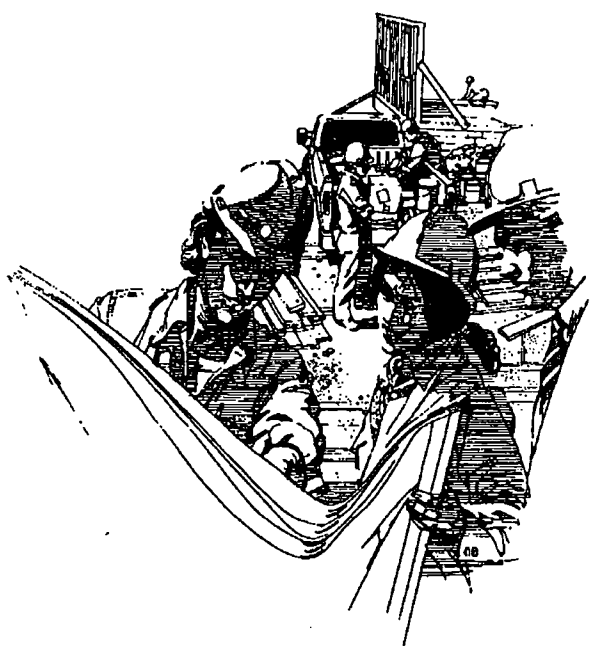
- *Freedom* – the liberty of action individuals have to pursue economic decisions, such as what work to pursue; and where, what goods, and services to consume.
- *Efficiency* – using the least expensive methods to produce goods and services.
- *Growth* – the long term increase in the goods and services available to individuals.
- *Security* – protection against economic risks such as inflation, unemployment, and poverty.
- *Equity* – the issue of "fairness" in the marketplace and in the distribution of income.
- *Environmental Quality* – concern for a nation's environment and natural resources.

Sometimes these goals work against each other. For example, in a command economy the government may assign everyone a job, but the jobs may be very boring and inefficient. In this case, there may be job security, but growth, freedom, and efficiency suffer. Another example is environmental protection. Laws which protect the environment restrict the freedom of businesses and may hinder growth.

In situations where goals work against each other, final economic policies usually involve **trade-offs**. For example, if environmental laws are passed which limit oil exploration in some wilderness areas, the society is trading-off the benefits of more oil for a more beautiful environment. In this case, the society accepts less efficiency, freedom, and growth, but gains more environmental quality.

Which Economic System is Best?

Individuals differ on the answer to this question. However, economics systems that emphasize the market approach certainly have proven to be best in promoting the goals of growth, efficiency, and freedom. This is because in a market system citizens are free to own their own property and use it in the most efficient and profitable way. Command and traditional systems sometimes offer more security, but are not nearly so strong in efficiency, growth, freedom, and environmental quality.



Questions To Master

1. Explain why every country must have an economic system?

2. What are the three basic economic questions that every country must answer?

3. What are the three basic kinds of economic systems?

4. The former Soviet Union was an example of what kind of economic system?

5. Which kind of economic system is the best for raising the living standards (GDP) of individuals?

6. Which economic system is characterized by the least change?

7. Which economic system allows for the most individual freedom?

8. In which economic system is the government most influential?

9. In the market system what factor guides economic activity?

10. In which economic system do individuals do things based on how they have always been done?

11. List five economic/social goals that nations use to guide individual and government decisions.

Group Activity (GI) – Unit 5

Economic Systems: How Nations Organize Their Economies

WHO GETS IT?

OVERVIEW: In any economic system there must be a way to determine who gets the goods and services produced in the economy. In a market economy price is the primary way to determine this. However, even in a market system there are other ways to allocate certain things. In specific situations the following ways are used:

1. PRICE (the market) – whoever can pay for the item gets it
2. FIRST COME/FIRST SERVED – whoever gets there first
3. PERSONAL CHARACTERISTICS – someone in authority decides who gets an item based on characteristics such as age, gender, level of income, physical characteristics, or personal qualifications.
4. FORCE – theft and violence

PART I: Divide into groups of three. In the blank next to the items indicate which of the four ways above is used to determine who gets the item. *More than one way may apply! The first one is done for you.*

a. IBM Computer Market

b. Tickets to the Senior Prom _____

c. VCR repair service _____

d. Camping sites at a state park _____

e. Winner of the Miss America Beauty Contest _____

f. Welfare payments _____

g. Tickets to the Super Bowl _____

h. Entrance into college _____

i. A position on the Purdue basketball team _____

j. A Chicago Bears sweatshirt _____

PART II: Your teacher will play "The Corn Market Game" with you. Wait for directions!

The Corn Market Game Student Instruction Sheet

OVERVIEW: In this game each student tries to make as much money as possible buying or selling corn. Your teacher will divide the class into two groups representing buyers and sellers. There will be one winner from each group. Before you begin you must understand the rules of the game thoroughly. Read them carefully.

RULES:

1. The class will be divided into two groups, representing corn buyers and corn sellers. Students remain either buyers or sellers during the whole game. Each student gets a Corn Market Score Sheet, with a different color paper for buyers and sellers.

2. Each person also will begin the game with a "Corn Card." Each card represents 10 bushels of corn. The Buy Corn Card will read: "You are authorized to **BUY** 10 bushels of corn. Pay as little as possible. If you pay more than ___ per bushel, ___ for ten bushels, then you loss money." (There will be prices in the blanks.)

   The Sell Corn Card will read: "You are authorized to **SELL** 10 bushels of corn. Get as much as possible. If you receive less than ___ per bushel, ___ for ten bushels, then you lose money." (There will be prices in the blanks.)

3. When your teacher says "Begin," you will try to make a trade with another person in the class. Buyers trade with sellers and vice versa. You will have several minutes to make trades, and may make as many trades as you wish in the time period. Try to negotiate the best trade possible. Buyers try to buy at the lowest possible price, sellers try to sell at the highest possible price. When haggling, the per bushel price must be in increments of at least 10 cents. **IMPORTANT: AS YOU MAKE TRADES DO NOT REVEAL THE PRICE ON YOUR CORN CARD!**

4. After each trade write the negotiated trade price on your Corn Card Score Sheet. Then put your Corn Card on the bottom of the correct pile and draw a new card. **Take the card on top**, and then proceed to make more trades. **IMPORTANT:** Sellers have an additional responsibility. After each trade tell your teacher the negotiated trade price (*not* the price on the card!). Your teacher will keep a record of these trade prices.

5. When your teacher says "Stop," sit down or continue making your last trade. Use your Corn Market Score Sheets to record your profit or loss for the round. If you are a buyer you make a gain if you buy at a price *lower* than the amount on your card. If you are a seller you make a gain if you sell at a price *higher* than the amount on your card.

6. You will play several rounds, with your teacher varying the rules slightly after each round. The seller and the buyer with the highest profit after all rounds are the winners.

Corn Market Scoresheet

Name _____ I am a (circle one) Buyer Seller

Transaction Number	Price on Card	Trade Price	Difference (+ or -)	10 Bushel Gain	10 Bushel Loss
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18					
			Net Gain or Loss		

Individual Project (IP) – Unit 5

Economic Systems: How Nations Organize Their Economy

Part I – Who Gets the Tickets?

Project Description: Below is a scenario describing the difficulty of assigning basketball seats for a popular tournament. Read the scenario carefully and then answer the questions on the "Who Gets the Tickets?" worksheet. *You* are the school superintendent in this scenario, so make a careful decision!

Tiny Waterville High School miraculously reached the finals of the regional basketball tournament! Everyone in the county is thrilled, and thinks that Waterville can beat Bigtown Central in the final game. Unfortunately, there is a major problem – the tournament gym is rather small, and only 1000 tickets (at $5 each) were allocated for Waterville fans.

The Waterville Student Council voted that the only fair solution was to let the 1000 Waterville students buy the tickets. After all, without the students there would be no game at all! Parents and other residents of Waterville disagreed very much. They thought that 600 tickets should be for them since they had always supported the team, even when it was losing earlier in the season. Many students did not even attend those games!

The athletic director, Mr. Jones, thought that the ticket price should be increased. "This tournament is a good way to earn money for the school. I propose we auction the 1000 tickets to the highest bidders, certainly that would be a fair solution."

The basketball coach suggested that the tickets should go on sale for $5 and those who were first in line should get them. Older residents disagreed strongly. "We can't stand in line for hours like some young people can," they argued.

The high school principal suggested that to avoid arguments there should be a lottery drawing. Surely that would be the fairest method. He was surprised to find that many people disagreed. Mrs. Akers, whose son was on the team, said that with a lottery, even parents of the players might not get to see the game. "That's not fair at all!"

The school superintendent has to make the final decision today.

Who Gets the Tickets?

Questions to Answer:

1. What is the basic economic problem in this scenario?

_____

_____

2. List the various suggestions for solving the economic problem. Also list the type of solution: a. Price b. First Come First Served or c. Personal Characteristics. (Remember, some solutions will be combinations of a, b, and c.)

Solution	**Type of Solution**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

3. You are the school superintendent. Carefully describe your plan for allocating the tickets. Explain why you chose this plan, and explain why you think it is fair. Use the back if necessary.

Individual Project (IP) — Unit 5

Economic Systems: How Nations Organize Their Economy

Part II: From Command To Market

Project Description: This assignment will help you learn some of the countries of the world that used to have command economies. You will also learn some of the difficulties involved when changing from a command to a market economy.

You will receive a world map from your teacher. The map reflects the world in 1990, before the break up of the Soviet Union and the reunification of Germany. The following countries are listed in groups according to the kind of economic system that the countries had in 1989. (As you have learned, no country is perfectly market, command, or traditional.)

Command	Market	Traditional
Soviet Union	Japan	Bangladesh
Cuba	Australia	Ethiopia
North Korea	France	Haiti
Vietnam	South Korea	Sudan
East Germany	West Germany	Nepal
Albania	England	Zaire
Czechoslovakia	Singapore	Somalia
Bulgaria	United States	Papua - New Guinea
	Canada	

Tasks to Complete:

A. First label these countries on the map. Then color these countries according to their basic type of economic system. Use red for command, blue for market, and green for traditional. (Don't forget to make a key on your map.)

B. Recently many command economies have attempted to change to a market economic system. These changes have not been easy. Search news magazines such as *Time* or *Newsweek* for articles that describe some of the specific difficulties the people in these countries have had changing to a market system. Cut out or copy *four* articles. Underline sentences that illustrate these difficulties.

Test On Unit 5 Concepts

1. What are the three basic economic questions that every country must answer?

2. What are the three basic kinds of economic systems?

3. In 1990, Cuba and Vietnam were examples of what kind of economic system?

4. Which basic kind of economic system is best for raising the living standards (GDP) of individuals?

5. Which basic kind of economic system is characterized by the least change?

6. In which economic system is the government most influential?

7. In which basic kind of economic system do people have the most individual freedom?

8. There are never enough seats for those who want to attend the Super Bowl. What are two ways the Super Bowl officials decide who gets the seats?

9. In the market system, explain how a market price is determined. (Hint: What happened in the Corn Market game?)

10. List five economic/social goals that guide individual and government decisions.

Curriculum Resources

The Development Data Book

This 16 page booklet gives social and economic statistics on 129 countries. Statistics include life expectancy, adult literacy, population, GDP per capita, and merchandise exports. Many color-coded maps and charts are provided. A separate 52 page teaching guide is available. Approximate cost $6. Set of 11 booklets plus teaching guide costs $10 (1988).

World Bank Publications
PO Box 7247-8619
Philadelphia, PA 19170
(908) 225-2165

Elementary Economist/Economics for Kids

This publication, published three times each year, explains basic economics concepts and highlights K-6 teaching activities which teach the concepts. Yearly subscription costs $15. Back issues pertaining to world trade topics are available at reasonable cost.

National Council on Economic Education
432 Park Avenue South
New York, NY 10016
1 (800) 338-1192

Give and Take

This 12 part video series is designed for middle school and junior high students. Each 15-minute film covers a specific economic topic. The teacher's manual contains students worksheets. Can be purchased through Purdue University for $37 (1982).

Self-Directed Learning Programs
101 Young Graduate House
Purdue University
West Lafayette, IN 47906
(317) 494-2745

In the Marketplace (Level C)

These nine comprehensive lessons on the world economic community are designed for middle school students. The lessons stress resources, trade, and interdependence. Blackline masters for students are included. 136 pages. Approximately cost $22 (1990).

National Council on Economic Education
432 Park Avenue South
New York, NY 10016
1 (800) 338-1192

Junior Achievement

Junior Achievement's Project Business program, where business consultants visit middle school classrooms to introduce students to business and economic concepts, offers an excellent opportunity for students to question business people about their firm's involvement in international trade.

Junior Achievement
1317 North Pennsylvania Street
Indianapolis, IN 46202
(317) 634-3519

Master Curriculum Guide: Strategies for Teaching Economics — Junior High

This booklet contains many activities for teaching basic economics to middle and junior high school students. Approximate cost $11 (1981).

National Council on Economic Education
432 Park Avenue South
New York, NY 10016
1 (800) 338-1192

PC Globe/Mac Globe

This software is an enhanced electronic atlas/database. Students can retrieve a wealth of data, including maps, on 190 countries. IBM version requires 512K memory and two drives. Macintosh requires 1 MB RAM and hard disk. Approximate cost $80. Available through curriculum software catalogs (1991).

Play Dough Economics

This booklet contains 15 motivational economics lessons for elementary and middle school students. In each lesson students use play dough to help them learn the concepts. Free to Indiana teachers. Cost for out-of-state orders $5 (1988).

Indiana Department of Education
Office of School Assistance
Room 229, State House
Indianapolis, IN 46204-2798
(317) 232-9141

Return to Mocha

This animated cartoon video for middle school students portray the economics activities of humorous characters on make-believe South Sea islands. The key economic concepts presented are trade, specialization, interdependence, and comparative advantage. Available through Purdue University. Approximate cost $25 (1986).

Self-Directed Learning Programs
101 Young Graduate House
Purdue University
West Lafayette, IN 47906
(317) 494-2745

The Story of Foreign Trade and Exchange

A simple and motivational explanation of foreign trade and exchange done in comic-style format. Classroom sets up to 50 copies are sent free. Additional booklets are 15¢ each. Other educational materials are available from the Federal Reserve System.

Federal Reserve Bank of New York
Public Information Department
33 Liberty Street
New York, NY 10045
(212) 720-6134

World Population Data Sheet

This small pamphlet provides demographic data and estimates for the countries and regions of the world. It is published by the Population Reference Bureau, a private, nonprofit educational organization that publishes other educational materials on world population. Approximate cost $3 (1991).

Population Reference Bureau, Inc.
1875 Connecticut Avenue, Suite 520
Washington, DC 10009
(202) 483-1100

Worldways

This booklet contains a wide variety of motivating lessons for making students more knowledgeable about today's world. 251 pages. Approximate cost $18 (1987).

Addison-Wesley School Division
1983 Hicks Road
Rolling Meadows, IL 60008
1 (800) 535-4391

Appendix A

Social Studies Economics Proficiences

Grade 6

Demonstrate the influence of physical and cultural factors upon the economic systems found in countries of the Western World.

A. Explain how physical geography, specialization, and trade influence the ways people earn income in various countries of the Western World.

B. Explore the ways different countries of the Western World answer the basic economic questions of what to produce, how to produce, and for whom to produce.

C. Compare and contrast how education and technology influence the economic characteristics of various countries of the Western World.

D. Describe the level and sources of income in the major countries of the Western World.

E. Explain how social institutions, such as religions, influence the economic systems of countries in the Western World.

F. Describe the roles of government in a market system and a planned economy found in countries of the Western World.

G. Identify situations on which the actions of consumers and/or producers are helpful or harmful to others (inside and outside a country) who are not directly involved in the consumption or production of a product.

Grade 7

Demonstrate the influence of physical and cultural factors upon the economic systems found in countries of the Eastern World.

A. Explain how physical geography, specialization, and trade influence the ways people earn income in various countries of the Eastern World.

B. Explore the ways different countries of the Eastern World answer the basic economic questions of what to produce, how to produce, and for whom to produce.

C. Compare and contrast how education and technology influence the economic characteristics of various countries of the Eastern World.

D. Describe the level and sources of income in the major countries of the Eastern World.

E. Explain how social institutions, such as religions, influence the economic systems of countries in the Eastern World.

F. Describe the roles of government in a market system and a planned economy found in countries of the Eastern World.

G. Identify situations on which the actions of consumers and/or producers are helpful or harmful to others (inside and outside a country) who are not directly involved in the consumption or production of a product.

Appendix B

DATA TABLES

Region and Country	Population		GDP ($) Per Capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
North and Central America and the Caribbean					
Canada	26.2	7	19,030	77	105
Costa Rica	2.7	159	1,780	75	41
Cuba	11.0	243	–	76	–
Dominican Repoublic	7.0	389	790	67	74
El Salvador	5.1	656	1,070	63	29
Guatemala	8.9	225	910	63	21
Haiti	6.4	587	360	55	19
Honduras	5.0	122	900	65	32
Jamaica	2.4	587	1,260	73	63
Mexico	84.6	113	2,010	69	53
Nicaragua	3.7	77	–	64	43
Panama	2.4	83	1,760	73	59
Trinidad & Tobago	1.3	649	3,230	71	82
United States	248.8	70	20,910	76	98

Region and Country	Population		GDP ($) Per Capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
Asia and the Pacific					
Afghanistan	16.6	67	–	–	–
Australia	16.8	6	14,360	77	99
Bangladesh	110.7	2,097	180	51	18
Bhutan	1.4	37	–	48	5
China	1,113.9	311	350	70	44
Hong Kong	5.7	14,584	10,350	78	74
India	832.5	677	340	59	41
Indonesia	178.2	245	500	61	48
Japan	123.1	861	23,810	79	95
Kampuchea (Cambodia)	7.1	102	–	–	–
Korea, Dem. Rep.	21.0	469	–	70	–
Korea, Rep. of	42.4	1,136	4,400	70	87
Lao, PDR (Laos)	4.1	45	180	49	27
Malaysia	17.4	143	2,160	70	57
Mongolia	2.1	4	–	62	92
Myanmar (Burma)	40.8	161	–	61	–
Nepal	18.4	361	180	52	30
New Zealand	3.3	33	12,070	75	87
Pakistan	109.9	379	370	55	19
Papua New Guinea	3.8	22	890	54	13
Philippines	60.0	538	710	64	69
Singapore	2.7	12,307	10,450	74	69
Sri Lanka	16.8	688	430	71	71
Thailand	55.4	296	1,220	66	28
Viet Nam	64.8	531	–	66	–

Region and Country	Population		GDP ($) Per Capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
Europe					
Albania	3.0	299	–	66	–
Austria	7.6	239	17,300	76	80
Belgium	10.0	842	16,220	76	99
Bulgaria	9.0	210	2,320	72	75
Czechoslovakia	15.6	318	3,450	72	85
Denmark	5.1	309	20,450	75	107
Finland	5.0	38	22,120	75	108
France	56.2	268	17,820	77	94
Germany, Fed. Republic	79.0	577	20,440	75	94
Greece	10.0	197	5,350	77	104
Hungary	10.6	290	2,590	71	71
Ireland	3.5	129	8,710	74	98
Italy	57.5	496	15,120	76	76
Netherlands	14.8	1,044	15.920	77	104
Norway	4.2	34	22,290	77	94
Poland	37.9	316	1,790	71	81
Portugal	10.3	292	4,250	75	59
Romania	23.2	255	–	71	79
Spain	38.8	200	9,330	77	105
Sweden	8.5	50	21,570	77	90
Switzerland	6.6	424	29,880	78	–
Turkey	55.0	194	1,370	66	46
United Kingdom	57.2	609	14,610	76	83
USSR	292	34	–	70	99
Yugoslavia	23.7	242	2,920	72	80

Region and Country	Population		GDP ($) per capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
Middle East and North Africa					
Algeria	24.4	28	2,230	65	61
Egypt	51.0	141	640	60	69
Iran	53.3	92	3,200	63	53
Iraq	18.3	102	–	63	47
Israel	4.5	606	9,790	76	83
Jordan	3.9	96	1,640	67	–
Kuwait	2.0	204	16,150	74	81
Lebanon	3.4	843	–	–	–
Libya	4.4	6	5,310	62	–
Morocco	24.5	152	880	61	36
Oman	1.5	19	5,220	65	42
Saudi Arabia	14.4	19	6,020	64	44
Syrian Arab Republic	12.1	179	980	66	57
Tunisia	8.0	132	1,260	66	44
United Arab Emirates	1.5	74	18,430	71	62
Yemen, Republic	11.2	49	650	48	–

Region and Country	Population		GDP ($) Per Capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
Sub-Saharan Africa					
Angola	9.7	18	610	46	–
Benin	4.6	110	380	51	16
Botswana	1.2	5	1,600	67	33
Burkina Faso	8.8	88	320	48	6
Burundi	5.3	543	220	49	4
Cameroon	11.6	62	1,000	57	27
Central Africa Republic	3.0	12	390	51	11
Chad	5.5	10	190	47	6
Congo, Peoples Republic	2.2	17	940	54	–
Cote d'Ivoire	11.7	100	790	53	19
Ethiopia	49.5	113	120	48	15
Gabon	1.1	12	2,960	53	–
Ghana	14.4	168	390	55	39
Guinea	5.6	79	430	43	9
Kenya	23.5	112	360	59	23
Lesotho	1.7	156	470	56	25
Liberia	2.5	63	–	54	–
Madagascar	11.3	55	230	51	19
Malawi	8.2	206	180	48	4
Mali	8.2	17	270	48	6
Mauritania	1.9	5	500	46	16
Mauritius	1.1	1,368	1,990	70	53
Mozambique	15.3	52	80	49	5
Namibia	1.7	5	1,030	57	–
Niger	7.4	16	290	45	7
Nigeria	113.8	343	250	51	16
Rwanda	6.9	739	320	49	6

Region and Country	Population		GDP ($) Per Capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
Sub-Saharan Africa (continued)					
Senegal	7.2	99	650	48	16
Sierra Leone	4.0	154	220	42	18
Somalia	6.1	31	170	48	–
South Africa	35.0	86	2,470	62	–
Sudan	24.5	27	–	50	20
Tanzania	23.8	74	130	49	4
Togo	3.5	174	390	54	24
Uganda	16.8	205	250	49	8
Zaire	34.5	42	260	53	22
Zambia	7.8	29	390	54	–
Zimbabwe	9.5	66	650	64	51

Region and Country	Population		GDP ($) Per Capita (1989)	Life Expectancy at Birth	Secondary School Enrollment 1988 (percent)
	Total Millions (1989)	Density (Population Per Square Mile)			
South America					
Argentina	31.9	31	2,160	71	74
Bolivia	7.1	18	620	54	37
Brazil	147.3	47	2,540	66	38
Chile	13.0	46	1,770	72	74
Colombia	32.3	76	1,200	69	56
Ecuador	10.3	98	1,020	66	56
Paraguay	4.2	28	1,030	67	29
Peru	21.2	44	1,010	62	–
Uruguay	3.1	46	2,620	73	77
Venesuela	19.2	57	2,450	70	54

Notes:

1. The data in these tables (except population density) were taken from *World Development Report 1991*, published through the World Bank. Because of difficulties in compiling data, this data should be considered approximate, and should only be used to characterize major differences among countries and to interpret broad trends. Population density data were taken from the "World Population Data Sheet," published by the Population Reference Bureau, Inc.

2. The data tables in the *World Development Report 1991* use GNP, not GDP. However, since the two measurements are almost identical, GDP is used in this appendix. This is consistent with the terminology used in the student lessons.

3. The Secondary Enrollment ratio is the number of students enrolled in secondary school expressed as a percentage of the number of children of secondary school age (12 to 17 years). Secondary enrollment percentages exceed 100 percent for certain countries. This is because students below 12 or above 17 may actually be enrolled in secondary school.

4. Countries with populations less than one million are not included in these data tables.

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U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
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