

Industry and Services

I. Distribution of Industry

A. Industrial Regions

1. Industrial Revolution: a bunch of technological improvements that changed the process of manufacturing

- a. Started in the 1800's in the UK
- b. Spread through Europe first

B. Industrial Regions Today

1. Europe

- a. UK: steel, textiles, hi-tech
- b. Western Europe: Synthetic fibers, pharmaceuticals, coal, iron
- c. Eastern Europe: ship building, minerals, petroleum, coal

2. North America

- a. New England: Cotton, coal
- b. Great Lakes: steel
- c. West Coast: textiles, food, furniture

3. Asia

- a. Japan: exports
- b. East Coast China: cheap labor, exports
- c. Southern Coast South Korea: ship building

C. Situation

1. Proximity to Input:

- a. Cost of transporting raw materials expensive? Put plant closer to materials than markets
- b. Bulk-reducing industry: inputs weigh more than the final product
- c. Minerals

Metallic:

- Ferrous = Alloy with Iron (NICKEL, TIN, TITANIUM)
- Nonferrous = no iron (ALUMINIUM, COPPER,

LEAD, LITHIUM)

Nonmetallic:

- building stones, gemstones, nitrogen, calcium, sulfur

2. Proximity to Markets

- a. If it costs more to transport the finished product, put the plant closer to the market
- b. Bulk-gaining industry: makes something that gains volume or weight

- automobile manufacturing
- beer bottling

3. Transportation

- a. Companies want the cheapest transportation
 - Trucks: quick and cheap (for short distances)
 - Trains: take longer, but no stops
 - Ships: cheap! But slow
 - Air: Most expensive, but fastest

II. Factors to Industry

A. Site

1. Location Theory: explains the pattern of economic activities by identifying factors that influence it

Bellwork: What are the jobs of your parents or adult family members? Think about it!

Video: Crash Course, the Industrial Revolution

Discuss: What is it about these regions that encourage industry?: Why there?

Geographic Connection:

Define Situation. Write a definition for each in your notes.

Discuss: All minerals are just rearrangements of carbon. Why do we value some minerals above others?

**Discuss: If you were transporting _____ which would be the best for you? - Laptops
-Bananas
-Cars
-Books**

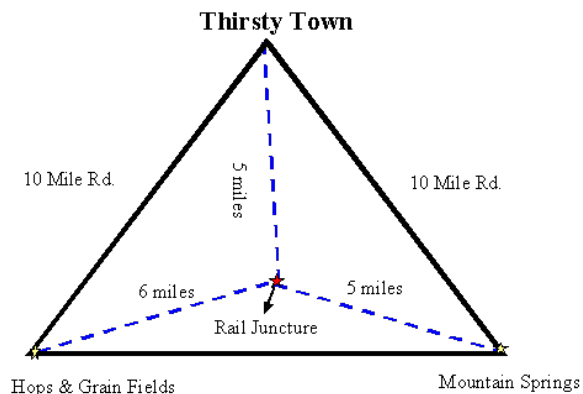
Summary: Describe the Distribution of industry around the world. Explain how site and situation influence an industry. Use a specific example.

Bellwork: What is the Von Thunen Model? What is the Gravity Model?

2. Labor
 - a. Labor-Intensive Industry: wages make up a high percentage of expenses
3. Money
 - a. Capital: money available to use
 - b. Need to be able to borrow money to start or expand manufacturing
4. Where do you put your factory?
 - a. Near cities!
 - b. Labor, transportation, markets
 - c. Depends on situation factors!
5. Proximity to Input:
 - a. Cost of transporting raw materials expensive? Put plant closer to materials than markets
 - b. Bulk-reducing industry: inputs weigh more than the final product
6. Proximity to Markets
 - a. If it costs more to transport the finished product, put the plant closer to the market
 - b. Bulk-gaining industry: makes something that gains volume or weight

B. Least Cost Theory

1. Alfred Weber (1868-1958)
2. Best place for manufacturing reduces:
 - a. Transport costs (most important)
 - b. Labor costs
 - c. Agglomeration costs
 - d. Agglomeration: clustering of productive activities and people for mutual advantage
3. Weber's 5 Assumptions
 - a. Area is uniform (the same)
 - b. Making one thing to send to one known market
 - c. Multiple sources of raw materials
 - d. Labor available but immobile
 - e. Transport uses shortest distance, so costs reflect the weight/distance
4. Weber's Location Triangle
 - a. Shows the break-of-bulk: the place where goods are transferred
 - b. Footloose Industry: Industries are that are nor market or resource oriented



This is the Industrial equivalent of the Von Thunen Model. Both say that the best place to put your business is the location that reduces the cost of transportation.

Explain to the kids that it isn't always a triangle. The shape may be more of a polygon depending on the number of sources.

Practice! Draw a Weber Triangle for: Lumber, Coca Cola Bottling, Automobile Assembly, Copper Production, Baked Goods. Is it bulk gaining or bulk reducing?

Video: How It's Made (pick any of them)

Summary: Explain the location of an industry comparing raw material oriented industries with market oriented ones. Define Weber's Least Cost Theory.

Bellwork: What are some

Source: [Pinecrest](#)

C. Industrializing Countries

1. We have our major industrial zones: Anglo- America, Europe, East Asia
 - a. Gross Domestic Product (GDP): total value of goods and services produced within a country during a specific time
 - b. Mass Production: production of large amounts of standardized products, often on assembly lines.

III. Industry and Pollution

A. Air Pollution

1. The concentration of trace substances at a greater level than occurs in average air
2. Global Scale
 - a. Global Warming
 - b. Industry and humans produce carbon dioxide
 - c. CO₂ traps radiation from the earth, causing the temperature to rise
3. Regional-Scale
 - a. Can damage a region's vegetation and water supply
 - b. Sulfur and nitrogen oxides combine with oxygen and water = ACID RAIN
4. Local Scale
 - a. Worse in urban areas
 - b. Comes from industry and motor vehicles
5. Brownfield: a former industrial region which has the presence or potential to have hazardous waste or pollutants

B. Solid Waste

1. Sanitary Landfill: garbage trucked to a landfill and covered with soil
 - a. No space? Burn it.
2. Hazardous Waste:
 - a. Heavy metals, mechanical oil, poisons, acids, chemicals

C. Water Pollution

1. Industry needs water; BUT humans need water too
2. Pollution comes from Manufacturing and sewage
3. Nonpoint Sources: produce more pollution and are harder to stop
 - a. AGRICULTURE! (fertilizers and pesticides are washed into the rivers)

D. Changes in International Industry

1. Newly Industrializing Countries: a country whose level of economic development is between the LDC and MDC.
 - a. India, Indonesia, Malaysia, Thailand, China
 - b. Mexico, Chile, Brazil
3. Asian Tigers: Countries that focused on creating consumer goods for export; South Korea, Taiwan, Hong Kong, Singapore
4. BRIC Countries: Brazil, Russia, India, and China – similar stage in economic development

E. Changes in Domestic Industry

1. USA
 - a. Industries is moving to the South East
 - b. Especially foreign auto companies
2. Europe
 - a. Government is encouraging industry and manufacturing to move

sources of pollution? How can we reduce pollution?

Emphasize the health effects of air pollution. Talk about Beijing and Mumbai.

Ask them to identify how many types of hazardous chemicals they have at their homes.

Discuss: What could be possible consequences of the improper disposal of hazardous materials?

Discuss: What are some contemporary problems with water pollution? Who should address them?

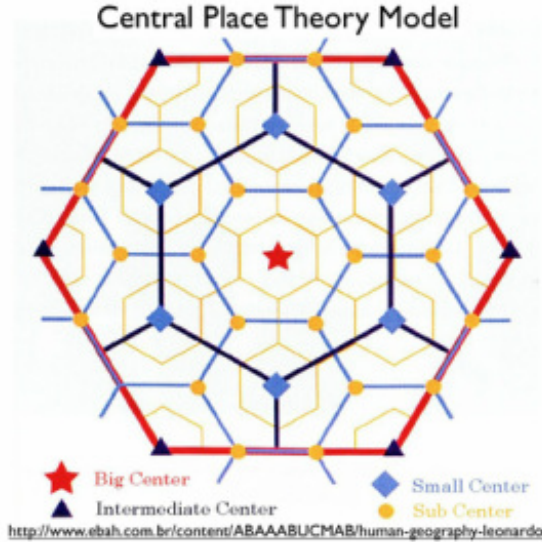
NIC's are for those countries that are in between being an LDC and an MDC.

Discuss: What are some non-industrial factors that lead to the development of a NIC?

The concept of basic and non-basic industries is confusing for the kids. Use local examples. Ask the kids if they know someone who works for _____. Connect the idea of services to those industries.

<p>to Eastern and Southern Europe</p> <p>3. Outsourcing</p> <ul style="list-style-type: none"> a. New International Division of labor: Transfer of jobs from core to periphery; especially low-paid, less-skilled workers b. Outsourcing: corporations use independent suppliers abroad c. Commodity Chain: the process of gathering resources, manufacturing and distribution <p>4. Mexico</p> <ul style="list-style-type: none"> a. Maquiladoras: factories built by US companies in Mexico, just across the border b. Export Processing Zone: industrial regions with easy access to transportation, few environmental regulations and tax exemptions for foreign companies <p>5. Every Settlement has</p> <ul style="list-style-type: none"> a. Basic industries: Essential economic processes for a community, if this industry left the city would die b. Non-basic Industries: non-essential consumer services INSIDE the settlement c. Economic base: a settlement's combination of basic and non basic industries to create the economic foundation d. Deindustrialization: when industry leaves an area, taking the economic base with them <p><u>IV. Distribution of Services</u></p> <p>A. The Basics</p> <ul style="list-style-type: none"> 1. Services: any activity that meets a human want/need in exchange for money <p>B. Types of Services</p> <ul style="list-style-type: none"> 1. Consumer Services: provide for individuals who want something and can pay for it <ul style="list-style-type: none"> a. Retail b. Education c. Health and Social d. Leisure (restaurants, hotels, entertainment) 2. Business Services: help other businesses do business <ul style="list-style-type: none"> a. Professional (law, technical, engineering) b. Financial (accounting, investments, insurance, real estate) c. Transportation and Information (trucking, storage, publishing) 3. Public Service: services for the community paid by taxes <ul style="list-style-type: none"> a. Law enforcement b. Federal employees <p>C. Service Employment</p> <ul style="list-style-type: none"> 1. Most economic growth worldwide has been in services 2. Health care and professional are the fastest growing services <p>D. Distribution of Consumer Services</p> <ul style="list-style-type: none"> 1. Central Place Theory: explains how to find the most profitable location for a consumer service <ul style="list-style-type: none"> a. Walter Christaller b. Market Area / hinterland: the area surrounding a service from which the consumers come c. Range & Threshold of Service <ul style="list-style-type: none"> - Range: the maximum distance people are willing to travel 	<p>Explain that the loss of basic industries can be devastating. (Detroit)</p> <p>Summary: Explain how pollution and development influence each other. Describe the economic structure of a NIC country. Be specific.</p> <p>Bellwork: Other than industrial and agricultural work, what kind of jobs do people do?</p> <p>Discuss: What are ways that changes in the economy can influence the service industries?</p> <p>This model is like the Von Thunen and Least Cost Theory because it looks at the transportation costs.</p> <p>Discuss: Come up with 3 different consumer services you would put near your neighborhood. Consider range and threshold.</p>
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- for a service
- Threshold: minimum market for the service to survive
- d. Market vary in size (town vs. city) so they fit into each other and overlap



Source: [Central Place](#)

- Rank-Size Rule: a country's nth-largest settlement is 1/n of the largest settlement's population
 - So the 2nd largest city in the country has 1/2 the population of the largest

V. Services for People

A. Services in Cities

- 50% of global population lives in rural settlements, 50% in urban settlements
 - Urban populations are growing
- Services in Early Settlements
 - First urban center in Mesopotamia
 - Places of worship
 - Protection (walls)
 - Periodic markets: vendors offer goods and services in a location on specified days
- Services in Urban Settlements
 - Urban settlements arose in the 1800's
 - Developed countries – most people live in urban centers
 - Developing countries – have the largest urban centers
- Primate City Rule: largest settlement has more than twice the population of the second largest
 - Paris, London
 - Mexico City, Jakarta
- Other Services in Global Cities
 - Consumer:
 - HUGE retail market area
 - Lots of leisure activity
 - Wealthy people live in global cities
 - Public: National government agencies, International organizations

Developed countries follow the rank size rule because the development and infrastructure is consistent throughout the country.

- USA, Canada (NOT THE UK OR FRANCE)

Countries that don't follow the rank size rule have a primate city.

Have the kids graph the population of the top 10 biggest cities in the state and see if your state follows the rank size rule.

Summary: Describe the different kind of services. Explain how development effects the Central Place Theory and the Rank Size Rule.

Bellwork: Lists as many consumer services you can think of.

Geographic Connections: What concepts from our chapter on migration contribute to this?

Mexico is the prime example for this.

Discuss: If a country does or does not have the rank-size distribution of cities, what can that tell us about the country?

Discuss: In what ways is tourism geographically oriented? What are the

<p>6. Tourism</p> <ul style="list-style-type: none"> a. Relies on a population with enough money to vacation b. Serves as a basic industry, brings in money from the outside c. Designed to cater to our desires <p>7. Specialized Settlements - Public Services</p> <ul style="list-style-type: none"> a. State capitals: Legislatures, executive offices, courts b. Large universities c. Military Bases <p><u>VI. Distribution of Business Services</u></p> <p>A. Global Cities</p> <ul style="list-style-type: none"> 1. Important urban settlements for international business <ul style="list-style-type: none"> a. HQ of large corporations b. Stock exchanges c. Professional/Financial Services! (lawyers, accountants, insurance) 2. Global cities are either: Alpha, Beta, or Gamma <ul style="list-style-type: none"> a. Divisions based on: <ul style="list-style-type: none"> - Economic – # of corporate HQ/financial institution/law firms - Political – hosting international events - Cultural – famous icons/sports/education - Infrastructure – international airport, communications, health care <p>B. Business Services in LDC's</p> <ul style="list-style-type: none"> 1. Offshore financial services: <ul style="list-style-type: none"> a. Taxes: Companies operate out of these countries to hide their money to avoid being taxed c. Privacy: Corporations can hide where their money comes from 2. Outsourcing: <ul style="list-style-type: none"> a. Business-Process Outsourcing: transferring work like customer service abroad b. Why outsource to LDC? <ul style="list-style-type: none"> - CHEAPER! You can pay workers less - Can speak English (Asia!!) <p>B. Specialized Settlements</p> <ul style="list-style-type: none"> 1. Business: <ul style="list-style-type: none"> a. General business (New York City) b. Computer and Data Processing (San Jose, San Francisco) c. Military Activity Support d. Management-Consulting e. Entertainment and Recreation (Los Angeles) f. Medical (Baltimore) <p>C. Distribution of Talent</p> <ul style="list-style-type: none"> a. Some places have a high density of people with special talents <ul style="list-style-type: none"> - College educated - Scientists - Cultural diversity - Business Professionals 	<p>biggest tourist destinations in America? What about the world?</p> <p>Summary: Using a country capital, describe the consumer and public services. Use a model to explain why we see that service there.</p> <p>Bellwork: If you are Tim Cook, CEO of Apple, what kinds of professional services would you need for your company? Why?</p> <p>Video: Tax Havens 101</p> <p>Video: Panama Papers (Vox)</p> <p>Geographic Connection: QUICK LOOK BACK IN YOUR NOTES AND DEFINE OUTSOURCING YOURSELF</p> <p>Discuss: What could be some positive or negative effects of business-process outsourcing for the workers in LDC's?</p> <p>Video: Why outsourcing is bad for business</p> <p>Geographic Connections: Come up with example cities for each of the specialized settlements.</p> <p>Summary: Describe the impact of business services on more developed countries and less developed countries.</p>
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