**Slide 1**

**Text:** Standard 11: Patterns and networks of economic interdependence on earth's surface

[Map of United States showing soil types] [Map of United States showing renewable resources] [Photo of Lavender Copper Mines in Bisbee, AZ] [Photo of a Wisconsin forest]

**Audio:** Standard 11 is Economic Geography, patterns and networks of economic interdependence on earth's surface. Resources are unevenly scattered across the surface of the earth and no country has all the resources it needs to survive and grow. A person who's well informed geographically understands the spatial arrangement or organization of economic, transportation and communication systems. These systems produce an exchange commodity such as raw materials, manufactured goods, capital and services all of which constitute the global economy. In this slide there are four images. The map in the upper left corner is a map of soil types in the United States. Soil, like water is a natural resource. The US has some fantastic soil types for growing crops. The Midwestern and prairie states have long been established as the breadbasket of the country. The map in the upper right corner shows the US's availability of renewable energy resources, from wind, to biomass, to solar energy. Again the United States has abundant renewable energy potential. The photo in the bottom left is an open pit mine in Bisbee, Arizona the Lavender Mine. This copper mine is what gave the town of Bisbee its economic jumps start. Later however, when the mines output declined, Bisbee had to look elsewhere for its economic vitality. Today, it is acquaint and quirky, an artsy town in Arizona's high desert. In the photo in the bottom right is a picture of a Wisconsin forest. Logging was the economic engine of Wisconsin in its early days of European settlement. Today, cities and towns in Wisconsin have to rely on other industries and services to fuel their economies.

**Slide 2**

**Text:** Global Economic Interdependence

[Map of global shipping routes] [Photo of the representatives to the Seoul Summit in November 2010] [Clip art of modes of transportation]

**Audio:** The planet is truly economically interdependent. Each country must trade with others and Earth is a world of increasingly global economic independence. The image in the top of this slide shows global shipping routes. You can see from the color of each line moving from black into reds, oranges and then yellows the number of journeys taken in a particular route. The lower right hand corner shows the representatives to the Seoul Summit in November 2010 whose findings created the document called "framework for strong sustainable and balance growth." The first five points from the introduction to the summit agreement read as follows, "We, the leaders of the G20 are united in our conviction that by working together we can secure a more prosperous future for the citizens of all countries. When we first gathered in November 2008 to
address the most severe world recession our generation has ever confronted, we pledged to support and stabilize the global economy and at the same time to lay the foundation for reform, to ensure the world would never face such upheaval again. Over the past four summits we have worked unprecedented cooperation to break the dramatic fall in the global economy to establish the basis for recovery and renewed growth. The concrete steps we have taken will help ensure we are better prepared to prevent and if necessary to expand future crisis. We pledge to continue our coordinated efforts and act together to generate strong, sustainable and balanced growth. We recognize the importance of addressing the corners of the most--the concerns of the most vulnerable. To this end, we are determined to put jobs at the heart of the recovery to provide social protection, decent work and also to ensure accelerated growth in low income countries."

Slide 3

Text: Transportation – Interconnections and Economics

[Black and white photo of a train at a station] [Map of US railways] [Black and white photo of train cars being loaded]

Audio: One of the main interests of geographers is to look for patterns and connections on Earth's surface. Geographers think spatially. Studying and mapping interconnections between phenomena is a major pursuit of geographers. We know that Earth's resources are only evenly distributed across the globe. For example there is little oil in India and a lot of oil in the Middle East some world climates are suitable for year round agriculture. And some places can only plant and harvest crops in a three or four month of summer season. As a result, systems and networks of trade and transportation, communication and of course the crops, minerals, products, materials, components, labor, capital and so much more move around in the system. In the images on this slide we see in the bottom left corner a map of railways in United States. Note where you see the majority of rail lines originate, around the Great Lakes which is connected to the Saint Lawrence Seaway, which is connected to the Atlantic Ocean, which leads us to both natural and manufactured resources abroad as well as to markets for goods shipped from the United States. In the photo on the right side of the slide, we see the narrow gauge rail cars filled with iron ore from Ohio waiting to be put on ships or rails headed for some other part of the country.

Slide 4

[Map of US truck routes] [Diagram showing the increase in US corn production between 1957 and 2007] [Diagram that asks us to think about how far our produce travels before it reaches our supermarket] [Image of book cover for Animal, Vegetable, Miracle]

Audio: The spatial dimensions of economic and global interdependence are visible everywhere. Vegetables are shipped to markets, miles from where they were grown and processed. In this
slide we see four images. In the top left, we see US truck routes showing the vast network of highways used to transport produce and goods from one place to another. We can envision mature crops in the field, the pickers and the trucks use to haul fresh vegetables to canning plants or the grocery distributing centers which in turn send trucks to smaller, regional distributing centers. And those centers load trucks destined for grocery stores. And then we go shopping and bring the produce home to our tables. In the upper right hand corner a diagram showing the increase in US corn production between 1957 and 2007. In the bottom left, we see a diagram that asks us to think about how far our produce travels before it reaches our supermarket. Look at the labels in grocery stores and you'll see products sold, typically come from other US states and from other countries. We might say, so what, why should I care where my products come from as long as I can have fresh strawberries whenever I want them. Why should we care? What might geographers consider? The number of miles, the vegetables or other goods is moved and the gas prices. And then the extraction and transportation of petroleum and perhaps the conflict in oil rich regions of the planet. And then we might consider the wear and tear on the roads and the cost of maintaining roads with heavy truck traffic. And the cost of tires and maintaining the trucks, and the extraction of the rubber, and the natural goods and resources that go into transporting the crops or other goods. And finally, we see the cover of a book by writer Barbara Kingsolver, Animal, Vegetable, Miracle. This is a book about locally grown produce, in an environmental counter trend to buying produce that is shipped across the country. It's fresher, so it's higher nutrient value and often grown with non-industrial strength pesticides or grown organically. And overall, eating locally grown produce means a lower carbon footprint. All we need to do is look around and we'll see these interconnections and networks visible everywhere. From a mail truck delivering and picking up mail in neighborhoods, that retrieves its mail form the local post office, which retrieves its mail from the main post office distributing center in the city or region, which receives its mail from the airport and so on, and back and forth to your mailbox. To get an idea of where the products you use in the clothes you wear come from, check the labels on products. Are they made in the United States or are they made elsewhere? Create a map of the root of your skirt, or your shirt that you're wearing today or the bath towels that you used this morning to see the journey of a particular item and how it might have arrived to your house.

Slide 5

[Map of US Airline hubs] [Concentric circle map focused on Monsey, Indiana] [Ad for teleworking]

Audio: The globalized world in which we lived adds even more layers of complexity to our connected and interconnected space. We look at the hierarchy of places and almost the spokes that move outward major distribution areas to smaller and smaller centers of business and trade. The map in the upper left hand corner of this slide is a map of US Airline hubs. As the word
suggests hubs are located in the largest cities with the greatest demand for airline flights and then they fly to outlying smaller cities. The exchange of goods and materials from one place to another keeps an economy running. The map on the right side of the slide shows a concentric circle map focused on Monsey, Indiana. It is showing the regional connections or the range or extent of the regional economy. Monsey and Delaware County are within 300 miles of cities like Chicago, Milwaukee, Detroit, Toledo, Columbus, Dayton, Cincinnati, Louisville, St. Louis and of course Indianapolis. With multiple rail lines and close interstate roots nearby, Monsey and Delaware County offers easy access to transportation infrastructure. Economic activities depend upon capital, resources, power supplies, labor, information and land. However we also see that the spatial patterns of the labor systems change over time. For example, the advertisement at the bottom left of this slide, illustrates that as people become more environmentally aware and as technology and connectivity improves, telecommunications are diminishing the needs for a person's physical presence in an office. People are beginning to work more often from home. Economic, social and therefore, spatial relationships change continuously. And because trade and commerce depend upon capital, resources, power supplies, labor, information and land, you can imagine the complex layering of networks, not only of transportation, but also communication and of people as well. Imagine the number of people and places and trucks, trains, airplanes and telecommunications and other linkages that have gone into the dinner you eat tonight or the clothing you might wear tomorrow.

**Slide 6**

[Image of book cover for *The Promised Land*] [Photo of two coeds at Duke University in the 1960s] [Photo of Mexican women working in a maquiladora]

**Audio:** Over the centuries, patterns of industrial labor systems have changed tremendously. In the mid and late 1800s in the United States, as factories concentrated in cities and machines replaced small scale agriculture lists, people were pushed out of rural areas and pulled into the urban areas. Cities grew and so did their labor forces and overall composition. The book, whose cover you see in this slide, "The Promise Land: The Great Black Migration and How It Changed America" tells the story of the largest internal migration in the history of the United States. When large southern plantations began to industrialize, fewer workers were needed as laborer. At the same time, the northern industrial cities had job openings everywhere. Millions of African-Americans from the south found themselves displaced from the farms and fields so they migrated north where the jobs were. In this example, we see both push and pull factors at work, as people were at once pushed off the farms and pulled or attracted to the cities where jobs were plentiful. From a social standpoint after the 1960s, more and more women began to work outside the home, thereby altering the gender of commerce and trade as well. In the picture on this slide, we see two coeds at Duke University in the 1960s. Women were beginning to participate in the paid workforce in ever increasing numbers. In the United States, the spatial structure and built
environment revolving around trade and commerce shifted again after the 1980s. Factories and manufacturing plants are nearly gone. In the regions of the United States that grew out of the industrial revolution, the Great Lakes region and the manufacturing region have declined in economic importance. The manufacturing belt is now often referred to as the rust belt. In the photo in the bottom right corner, we see Mexican women working in a maquiladora, an assembly plants or factory outside of the United States often along the border, but also as far away as China, India, and Indonesia. Maquiladoras are often referred to us sweatshops and they're known for their great working conditions, yet they supply jobs for thousands and thousands of Mexican women. So again, we see that economic, social, and spatial relationships changed continuously.

**Slide 7**

[Diagram of the State of Oregon's schematic diagram for transportation planning, integration and implementation]

Audio: In the developed countries of the world's core areas, city, state and regional planners and business leaders are concerned with such issues as accessibility, connectivity, location, networks, functional regions and spatial efficiency, factors that play in the essential role in economic development and also reflects spatial and economic interdependence of places on earth. The image on this slide shows the State of Oregon's schematic diagram for transportation planning, integration and implementation. As the diagram's flow illustrates, the transportation department is not only concerned with cars and trucks, but other modes of transportation as well, such as public modes of transportation, bicycles and pedestrian traffic, real and fright lines and so on. After passing through several phases of planning and refining, the comprehensive transportation plan moves toward implementation. As world population grows, as energy cost increase, as time becomes more valuable and as resources become depleted or discovered, societies need economic systems that are more efficient and more responsive. It is particularly important therefore for students to understand world patterns and networks of economic interdependence. And to realize that traditional patterns of trade, human migration and cultural and political alliances are being altered as a consequence of global interdependence.

**Slide 8**

[Photo of Elizabeth Larson]

Audio: This presentation is by Beth Larson, School of Geographical Science and Urban Planning, Arizona State University 2011.