

Follow an Indian Resource (Internet Activity)

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Grade Level (Req.): 10th-12th grade	Content Area (Req.): World Geography, Physical Geography, Economics, English/Reading, Technology	Unit (Opt.):
Connections to Other Disciplines (Opt.): • • •		
Time Frame (Req.): 1 or 2 class periods	Goal (Req.): To understand the diversity apparent in Indian states.	
	Objective (Req.): Students will learn various facts about India and Indian states. Students will observe how regional economies are related to national economies, and in turn how national economies fit into the large picture of the global economy. Students will observe how transportation infrastructures (highways, railroads, ports, etc.) aid in the transportation of goods, resources, communication, etc. Students will get a better feel for the geography of India.	
Materials Needed (Req.): • Computer with Internet access and a printer – to search, access maps of India, and to print off maps of India • Books and maps (if available) • Highlighter or marker to show routes utilized • • • •	New Vocabulary (Opt.): • • • • •	
Anticipatory Set/Introduction [Inquiry Question is required] (Req.): India's economy is extremely diverse in terms of the different commodities produced, the regions where they are produced, the networks of transporting them, and the many trading partners they have throughout the world. Today we will take a look at these phenomena. What makes India so diverse?		
Instructional Sequence/Procedure (Req.): 1. Students are first each assigned an Indian state: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, West Bengal. 2. Next, each student searches the Internet (and books and maps if available) in order to find the answers to some basic questions about their respective state: 1) Name four cities in your state. Where are the cities located in your state (N, E, S, W, etc.). 2) What is the current temperature of a city in your state (not the same city from question 1)? What time is it there? 3) Name two		

historic/significant/unique structures (monuments, architecture, temples, etc.) in your state. 4) What physical geography exists in your state (mountains, rivers, plateaus, lakes, does it border the ocean, etc.)? 5) What other Indian states and countries border your state? 6) Write down two other things you learned while searching about your Indian state. 7) Name a resource, crop, or commodity that is produced or extracted in your state.

3. Next, each student will further research the resource from the state that they chose (question 7). The student must get the resource from a city in their state to a port on the ocean (via rail or highway) where it will then be exported to a trading partner and ultimately consumed. The students will keep a map with their route highlighted. Transportation maps of India are available at <http://www.mapsofindia.com>. This website has maps of each state's railroads and highways, and also has a map of major ports in India. These maps are accessed by going to this website and then clicking on the "Transport Maps" link. The student will: Pick a city/village in their state where the resource originates. Pick a logical port to bring the resource to. Obtain a map off the website above of their state's railroads or highways and guide the resource to a port on the ocean where it will be exported; the students will need to obtain a map of all the transportation infrastructures they used from each state they went through in order to arrive at the port they chose; the student will highlight the routes they chose on the maps that they have printed. Once the resource is at a port city the student must choose a trading partner to export the resource to; India's major export partners (in order) are: USA, Hong Kong, UK, Japan, and Germany; the student must write down which country the resource is going to, what commodity the resource will be processed into, and who will buy the final product.
4. Some quick basic examples of what a student may turn in: Example 1: Bauxite (aluminum ore) is mined by a lake in Nawada, Bihar. It is sent by rail through the states of Bihar and West Bengal until it reaches the port city of Kolkata (maps of each state the bauxite passed through must be turned in with the route highlighted). The bauxite is shipped to Seattle, Washington where it is refined and turned into aluminum. The aluminum is used at a factory in Seattle where it is made into an airplane that is eventually used by people from the USA and throughout the world.
5. Example 2: Iron Ore is mined in Balangir, Orissa. It is sent by rail through the states of Orissa and Andhra Pradesh until it reaches the port city of Vishakhapatnam (maps of each state the iron ore passed through must be turned in with the route highlighted). The iron ore is then shipped to Tokyo, Japan where it is processed and used to make automobiles at a Toyota plant. Automobiles are manufactured and purchased by people from all over the world.
6. Some other examples of Indian resources/goods are: various gemstones, jewelry, metals, rice, wheat, corn, mangoes, bananas, jute, millet, rugs, silk, textiles, tea, milk, cotton, and chemicals.
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Formative Evaluation (Req.): Class participation

Assessment (Req.): Resource write-ups

Iowa Core Curriculum Standards Used (Req.):

- Geography, grade 9-12: Understand the use of geographic tools to locate and analyze

information about people, places, and environments.

- Geography, grade 9-12: Understand how physical and human processes shape the Earth's surface and major ecosystems.
- Technology Literacy, grade 9-12: Apply digital tools to gather, evaluate, and use information.
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Common Core Curriculum Standards Used (Opt.):

- Writing Standards for Literacy in History/Social Studies, grade 6-12: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
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NGS Standards Used (Req.):

- How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective
- Analyzing the spatial organization of people, places, and environments in a spatial context
- The patterns and networks of economic interdependence on Earth's surface
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Five Themes of Geography Used (Req.):

- Location
- Place
- Region
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School District Standards and Benchmarks (Opt.):

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21<sup>st</sup> Century Universal Constructs (Opt.):

Other Disciplinary Standards (Opt.):

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Other Essential Information (Opt.):

Other Resources (Opt.):

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