Introduction

As citizens of a world interconnected by technology and mutual concerns with environmental sustainability, cultural diversity and economic progress, our students need to gain a greater awareness, sensitivity and interest in other places and peoples. For students, one of the best ways to do this through friendships as this allows them to relate to other people as individuals who, in spite of cultural and language differences, share many similar interests and concerns. Thus, the overall goal of this project is to structure an exchange between middle school students that will foster both the development of personal relationships through letters and email as well as the sharing of science and cultural projects.

Both partner schools, the Kendraya Vidyalaya, Sector-2 R.K. Puram, New Dehli, and Delmar Middle and Senior High School of Delmar, Delaware, follow strict curriculum guidelines for science. This situation severely curtails the amount of class time we are able to devote to curriculum activities related to this project. Because of this, the science topics chosen for the exchange portion of this project are based on a comparison of the seventh grade science curriculum of both schools for the purpose of reinforcing and enriching student understanding of the mandated curriculum. In addition, this project explores several ways to integrate India-related materials into the existing science curriculum of the Delmar students throughout the year.

Finally, the last portion of the project outlines a set of additional workshops and materials for use with after-school multicultural and science clubs and/or social studies classes. Students attend club meetings after school on a weekly or bi-weekly basis. Activities at these meetings are generally informal and hands-on and will be supported by an introductory power point presentation and related web-site materials.
Driving Questions

Before going to India, I asked the sixth and seventh graders at Delmar Middle School to write three things they already knew about India and three things that they wanted to learn about. The results showed that most students knew relatively very little about India and presented a number of challenges. In general, the students of Delmar are very ethnocentric: they generally see the United States as inherently “better” than anywhere else in the world and, while curious about other places, often do not see why they should learn more in depth about other cultures and peoples. They too often have little understanding of other cultures beyond certain general stereotypes or media-induced images and while intrigued by the outer aspects of culture (food, clothes, music), they do not necessarily see beyond the surface nor appreciate how any of this might be related to or affect their own lives.

How can I help my student see beyond exotic – to appreciate cultural differences yet celebrate the commonalities of being human? How do I present complex issues of poverty and privilege, caste and class, and gender roles and relations in a way that helps my students appreciate other points of view and to reflect upon their own values? Thus, above and beyond specific information about India, whether cultural or scientific, my goal is to help make a positive change in the attitudes of my students with respect to the following questions:

- Why should I learn about people from other countries?
- Why should I learn about India?
- How can I make a change (for the better) in my life because of this?
- Can I help make a change (for the better) for and with kids from India? How?

Building Cultural Connections

In order to provide a context for our science project exchange, two to three class periods will be set aside to “set the stage” and motivate students about the upcoming projects. The first of these will be a power-point presentation, “Introducing India” incorporating both images and
information from the summer trip as well as from the Internet. The second session, entitled “Exploring a Cultural Treasure Chest” will allow students to rotate briefly through each of several stations in order to handle artifacts and engage in a more active exploration of different cultural aspects. The third session will be a general de-briefing, activity and discussion of culture, “The Tip of the Iceberg.” The three sessions are outlined below; more detailed information is attached separately in the appendix.

Because we do not have unlimited classroom time, students who are interested in a more-in depth exploration of India will be encouraged to participate in the after-school club activities. For example, while all students will get to taste some Indian snacks, the after-school clubs will actually participate in a cooking project and learn to make some Indian foods in our school cafeteria. In addition, they will visit an Indian restaurant at the end of the year for a culminating celebration of the year’s activities. All students, however, will be encouraged to write pen-pal letters to include with our science project exchanges and to contribute to the “culture capsule” to be sent later on in the year.

Powerpoint: Introducing India

Stations: Exploring a Cultural Treasure Chest -- A Brief Look at Everyday Life
- Food: Indian snacks (pictures and samples to taste)
- Clothing: Students view photographs of both traditional clothing and modern teens and try on clothing from India.
- Language: Tapes and books in Hindi, Tamil, Telegu, and Urdu. Note: follow-up language lessons will be available after school through the multicultural club. Which language is offered depends on our parents and community members.
- School: Photo-essay about Indian schools, artifacts (tiffin, sample report card, textbooks, student diary)
- Religion: Print and electronic materials about major religions in India, pictures/small statues of several Hindu gods and goddesses
- Music: CDs and DVDs of both modern and traditional music and dance from different regions, bells, drum, and ankle bells

Cultural Debriefing: The Tip of the Iceberg
• Lesson from Peace Corps curriculum at http://www.peacecorps.gov/wws/educators/lessonplans/lesson.cfm?lpid=347
• Class discussion / completion of “iceberg” graphic organizer (adapted from Peace Corps materials)
• “Side-by-side” – Students complete individual graphic organizers comparing aspects of US and Indian culture and daily life. Multicultural club members create a comparative photo-essay project.
• Immigration and Cultural Identity – “Blue Jasmine” (YA novel)

Curriculum Tie-ins and Science Project Exchange

The Delaware seventh grade science curriculum emphasizes the nature and processes of science and covers four major units: the diversity of life, genetics, properties of matter, and Delaware watersheds. Students will use online resources as well as artifacts purchased in India to compliment the mandated curriculum with India-related information. They will also complete the projects about their home country and/or region using the guidelines linked below. Twenty-five science projects will then be exchanged via mail between the two schools.

Animal Project
• Curriculum links with seventh grade science curriculum:
  o DE curriculum: “Diversity of Life”
• Classroom connections (DE)
  o Indian photo safari (animals and maps)
• Science Project Exchange: Animal Clue Card Project exchange

Water Quality Investigation
• Curriculum links with seventh grade science curriculum:
  o DE curriculum: “Delaware Watersheds”
• Classroom connections (DE)
  o Watersheds of India (See references to maps and corresponding activity suggestions) maps http://cgwb.gov.in/watershed/basinsindia.html
• Science project exchange: How clean is your water? Tap water testing and comparison. How healthy is your watershed? Environmental water quality investigations and comparisons.
Workshops and Other Activities

The purpose of the workshops is to provide more avenues for students to explore Indian culture AND to make further connections with the science curriculum. It is beyond the scope of this project to elaborate step-by-step instructions for each workshop, rather the idea is to offer suggestions that can be adapted to the needs of either specific academic classes or clubs.

Delmar middle school students from grades 6, 7, and 8 meet every other Wednesday after school for the Multicultural Club. Among our activities this year, students will have the chance to participate in exploratory language classes (Hindi and Gujarati) facilitated by parents and community members and use books and other printed materials in a variety of other Indian languages (Bengali, Telegu, Tamil, Maharathi). They will use the school cameras to take photos and mount a “side-by-side” presentation to compare/contrast the lives of Indian teenagers with their own and will work with the cafeteria staff and high school culinary club to prepare an Indian meal using recipes from community members. Resources available to support these projects include the on-line resources (listed below and at the class wikispaces, http://delmarscience7.wikispaces.com under the “India” link) as well as the “cultural treasure chest” of artifacts from India to explore various aspects of traditional and contemporary Indian culture.

Resources

Language Books

From the Center for Learning Resources, Pune (http://www.clrindia.net/)
• *My World in Words*: Bilingual picture word books in English with Marathi, Hindi, Bengali, Tamil, Telegu, and Gujarati.
• Assorted bilingual storybooks (English/Hindi)

From the National Integration Language Series, Balaji Publications, New #235, Old #103, Pycrofts Road, Toyapettah, Chennai –600 014.
• *Learn Tamil through English in 30 Days* by N. Jegheesh (2008)
• **Learn Telegu through English in 30 Days** by K. Srinivasachari (2006)

**Bengali Resources**
• *Guide Book of English, Hindi and Bengali Siksha* by B.N Mishra and H.N Mukherjee, Bholanath Publishing, Calcutta

**Phrase Books**

**Language CDs**
• *101 Languages of the World*. Transparent Language. www.transparent.com (Set includes Hindi and Urdu)
• *Basic Hindi*. Pimsleur. Simon & Schuster. (10-lesson set)

**Science Texts**

From the National Council of Educational Research and Training
• *Glimpses of Plant Life*. Parts I and II. By B. M. Johri and B. Bhattacharyya (2001)
• Science Textbooks for Classes VI, VII and VIII
• Environmental Studies Textbook for Class V

From the Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune
• General Science Textbooks, Standards VI, VII and VIII

From the Andra Pradesh State Bureau of Textbooks, Hyderabad
• Science Textbook for Standard VII

From the Vikram A. Sarabhai Community Science Center, Ahmedabad (www.vascsc.org)
• *Environment and My Life*. By Dr. J. D’Souza (2000).
• *Streams of Knowledge*. By Dr. J. D’Souza (1998)

**Maps (road and state maps purchased in India)**
  o India
  o West Bengal
  o Andra Pradesh
  o Tamil Nadu

**Online resources**

**General**
• BoloKids: http://www.bolokids.com/index.htm
• CIA Factbook India page https://www.cia.gov/library/publications/the-world-factbook/geos/in.html
• Image India http://members.tripod.com/~IMAGE_INDIAG/index.html
• Kamat’s Potpourri: Rural India (essays and photos) http://www.kamat.com/indica/rural/
• Lonely Planet http://www.lonelyplanet.com/worldguide/india/
• Welcome to India http://www.tourindia.com/htm/homepage.htm
• U.S. Department of State country background page http://www.state.gov/r/pa/ei/bgn/3454.htm
• Yahoo! India http://in.yahoo.com/
• http://www.geographia.com/india/
• For kids, produced by Snaith Elementary School, http://home.freeuk.net/elloughton13/india.htm
• Kidipede, History for Kids, Ancient India at http://www.historyforkids.org/learn/india/
• Homeschooling resource page with list of India links for kids at http://homeschooling.gomilpitas.com/explore/india.htm
• Babloo kids portal (multilingual) http://www.babloo.com/
• India Times Tweens publication for teens http://tweens.indiatimes.com/
• http://www.pitara.com/

Social Justice and Education Projects
• Hole in the Wall project http://www.pbs.org/frontlineworld/stories/india/kids.html
• YouTube: Ashraya Initiative for Children (street kids Pune) http://www.youtube.com/watch?v=tFa4cAAMrRM

WebQuests
• Interesting India Awaits http://www.pocanticohills.org/links/webquests/webquest_india.htm
• My Two Homes http://www.edina.k12.mn.us/cornelia/teach/webquests/india/india.htm
• India/Pakistan Conflict http://www.campus-adr.org/cmher/ReportResources/Edition2_2/Webquest2_2.html
• India Tourguide http://www.homercenter.org/hcelem/webprojects/indiawebquest/webquestindiatourguide.htm
• Experiencing India’s Caste System (grade 6) http://teachers.eusd.k12.ca.us/mguerena/castewebquest/t-index.htm
Animal Project Instructions and Data Sheet

Welcome to our exchange project with India! We will be sending our animal projects to schools in India and receiving similar projects about their animals in return. Your job is to find out as much as you can about your chosen animal from North America. You will have 1 day in the computer lab to do your research and complete the data sheet below. Of course you can work more on it from home and/or come after school to use my computer if you need to! You will also need to print 1 large picture of your animal AND draw a picture of your animal in its habitat. Next you will create a 4-part “clue card” similar to the models you will see in class. We will discuss the directions and rubric for the “clue card” in class after our research day.

Guiding Questions for Your Research.
• Use loose-leaf paper if you need more space!
• Remember to write down ALL of the websites that you visit (URL, name of site, who made the site, date you visited the site)

1. Common name of your animal ________________________________

2. Scientific name of your animal ________________________________

3. Classification information:
   • Kingdom ________________________________
   • Phylum ________________________________
   • Class ________________________________
   • Order ________________________________
   • Family ________________________________
   • Genus ________________________________
   • Species ________________________________

4. Physical description
   • What does your animal look like?
5. Geographic distribution
   • Where does your animal live?

6. Habitat
   • What kind of environment does your animal live in?

7. “Niche”
   • Does your animal live alone or in groups? How does your animal make a living – get its food, etc.? Does your animal have any enemies?

8. Life History
   • How long does your animal live? Does it lay eggs or have live babies – how many? How long does it take to grow up? Etc.

9. Humans and your animal:
   • Do we “use” this animal for anything?
   • Is your animal threatened or endangered – how have humans affected it?

10. Fascinating Facts (your choice)
A Cultural Treasure Chest – Hands-on exploring

Students will explore different aspects of Indian geography and culture as they travel through set up with artifacts from India and other resources listed below. Samples of photos that can be used for each station can be found in the “Treasure chest” power point and can be either viewed as a power point presentation or printed and placed at the corresponding stations.

Examples of articles in the cultural treasure chest

- **Clothing:** sari, Kurta pajama, burka, dhoti, salwar kameez
- **Student life and supplies:** sample textbooks, notebook, tiffin, pictures of school (classes, students and uniforms)
- **Toys/games/sports:** Cricket (pictures, bat), board games, toy rickshaw
- **Music / dance:** traditional and contemporary (CDs), videos of performances from Trip, drum, ankle bells, temple bells, DVD of regional dances
- **Gods/goddesses:** pictures, statues (Kali, G….), materials to adorn family shrine,
- **Traditions:** rahki
- **Taj Majal:** photos, sample of inlaid stonework
- **Textiles:** carved wooden block prints, textile samples of block prints
- **Food:** Pictures, spices, recipes, samples
- **Mosaics/inlay work:** samples, photos

**Station 1: Food**

- **Artifacts:** photos of Indian foods and spices, recipes, utensils and food preparation, samples of 1 or more snack items.
- **Activities:** Students will taste one or more Indian snacks (samosas, etc.) while looking at the photos.
- **Websites**
  - Recipes will be provided by local community members but can also be found online. [http://www.culturalindia.net/indian-food/index.html](http://www.culturalindia.net/indian-food/index.html)
  - [http://indianfoodsite.com/indianfood.htm](http://indianfoodsite.com/indianfood.htm)
- **Discussion Questions:**
  - What snack foods do you eat that are similar to the things you have just seen and/or tasted?
  - What other cultures use “hot” spices? Can you think of a reason why?
  - What do you think about having a McDonald’s in every country? Do you think it is good or bad – why?
  - Do you like to try new foods?
What makes you want to try (or not want to try) a new food – how it looks? How it smells? What someone has told you about it? other reasons?

Should we serve foods from other countries in our school cafeteria? Why/shy not?

How is your kitchen the same/different from the kitchens you have just observed?

Who makes the meals in your home? Do you help?

Station 2: Clothing
- Artifacts: saree, Kurta pajama, burka, dhoti, salwar kameez, various hats, photos
- Activities: Students observe photos of traditional and modern Indian clothing and have the opportunity to try on the different articles.
- Websites:
  - http://www.culturalindia.net/indian-clothing/salwar-kameez.html
  - http://www.culturalindia.net/indian-clothing/index.html
  - Do teens in India wear….?
    http://answers.yahoo.com/question/index?qid=20071207183050AAAb0Zok
- Sample discussion questions:
  - How do you feel when you wear a __________?
  - What are some advantages of wearing a __________? Disadvantages?
  - Should everyone in the world dress alike? Why? Why not?
  - How might life be different if you wore a __________ everyday to school and on the street?

Station 3: Language
- Artifacts: books and printed materials in Hindi and other Indian languages, CD with spoken dialogues, bilingual books and Indian folktales (print and/or electronic)
- Activities: Students listen to Hindi language lesson tape and learn how to write their own name using one of the Indian scripts (and the dictionaries).
- Websites
  - Learn Indian Languages http://www.languageshome.com/
  - Basic words in Hindi http://www.hindilanguage.org/hindi/words.asp
  - Hindi script http://www.omniglot.com/writing/hindi.htm
- Discussion Questions:
  - Do you speak another language?
  - Do you think it is important to learn more than one language? Why-why not?
  - What would it be like if every state in the U.S. spoke a different language? Wrote in a different script?

Station 4: School and Children
- Artifacts: Photos (students, schools), sample textbooks, student diaries and report cards, sample school schedules, printed accounts of “a day in the life” of students of different ages (from the web), tiffin, cricket materials, traditional board games, toy rickshaw.
- Activities: Students complete a VENN diagram comparing/contrasting their school life with that of Indian students.
• Websites
  o UNICEF photo essay: The Girl Child in India  
    http://www.unicef.org/india/2370.html
  o UNICEF photo essay: Children going back to school  
    http://www.unicef.org/india/1087.html
  o UNICEF photo essay: Child Labor Elimination Project  
    http://www.unicef.org/india/1725.html
  o UNICEF photo essay: Girls’ Education – Returning to Thangaselvi  
    http://www.unicef.org/india/2617.html
  o UNICEF Girl Star Project (print and videos)  
    http://www.unicef.org/india/media_2673.htm
  o An explanation of cricket  
    http://www.cs.purdue.edu/homes/hosking/cricket/explanation.htm#basics
  o Watch highlights of cricket game on youtube  
    http://www.youtube.com/watch?v=LRJFDBk0bJE

• Discussion questions
  o How are Indian schools like US schools? How are they different?
  o What do you think about school uniforms? Advantages / disadvantages?
  o Compare your school day with a typical school day in India.
  o Do you think boys and girls in the US face the same problems or do girls in the U.S. face any of the same problems faced by girls in Indian schools?

Station 5: Religion
• Artifacts: Print and electronic materials about major religions in India, pictures (printed from the Internet and/or photos) / small statues of several Hindu gods and goddesses, items used to decorate a family shrine
• Activities: Students complete a chart to compare their religion with either Hinduism or Islam.
• Web sites
  o Information on Hinduism – Kent Junior School, UK (http://www.woodlands-junior.kent.sch.uk/Homework/religion/hinduism.htm)
  o Information about the Hindu religion, glossary, photos, festivals, and more  
    http://www.hindukids.org/
  o History for kids site  
    http://www.historyforkids.org/learn/india/religion/hinduism.htm
  o World religions  
    http://www.uri.org/kids/world_hind.htm
  o Islam for Children – UK school site  
    http://atschool.eduweb.co.uk/carolrb/Islam/islamintro.html
  o History for kids site  
    http://www.historyforkids.org/learn/islam/religion/index.htm

• Discussion questions
  o Compare your religion with either Hinduism or Islam – how are they the same? Different?
  o Do you think it is important to learn about different religions? Why / why not?
Station 6: Music and Dance

- **Artifacts:** CDs and DVDs and photos of both modern and traditional music and dance from different regions, instruments (or facsimiles) such as bells, drum, and ankle bells
- **Activities:** Students listen to CDs, try out the instruments and watch a segment of traditional Indian dance (DVD).
- **Websites**
  - Listen to Indian music online [http://www.in.com/listen/](http://www.in.com/listen/)
  - Video clips of traditional Indian dance [http://www.youtube.com/watch?v=UHjU7VcrugQ](http://www.youtube.com/watch?v=UHjU7VcrugQ) , [http://www.youtube.com/watch?v=PV69ziitMJJs&feature=related](http://www.youtube.com/watch?v=PV69ziitMJJs&feature=related) , [http://www.youtube.com/watch?v=9aCL41N0hYM&feature=related](http://www.youtube.com/watch?v=9aCL41N0hYM&feature=related)
  - Odissi dance [http://www.youtube.com/watch?v=Jvx8xR05y6o&feature=related](http://www.youtube.com/watch?v=Jvx8xR05y6o&feature=related)
  - Bollywood clips [http://www.youtube.com/watch?v=IiIL-w_jD8o&feature=related](http://www.youtube.com/watch?v=IiIL-w_jD8o&feature=related) , [http://www.youtube.com/watch?v=uij4R1QsugU&feature=related](http://www.youtube.com/watch?v=uij4R1QsugU&feature=related)
- **Discussion Questions**
  - What kind of music do you listen to? How does it compare with music that Indian teens listen to?
  - What do you think about traditional Indian music? How does it sound the same/different from music that you are used to (apart from the language differences)?
  - Do you play an instrument or participate in dance classes or performances? How are they the same/different from Indian musical and/or dance performances?
  - Traditional Indian dance uses hand motions and facial expressions to tell a story. Can you make up a dance – using rhythm, hand and facial expressions to tell a story to a song that you like?
Water Quality Investigation

We will be spending the next few weeks learning about our local watershed. Each student will complete the project below using online resources, maps and water test kits. Some of your work will be done in class and some will be done at home. After you have done your research, you will use your information, photos and drawings to create a brochure or poster about some aspect of water use, quality and/or pollution in our local watershed region. We will be exchanging brochures with our partner school in India to learn about their local watershed.

1. What is your watershed address?
   • Use a local map and/or internet sources to identify the watershed address of (a) the school and (b) your home.
   • Identify sources of pollution that might affect the water quality of the rivers and ponds in your watershed. You may do this by (a) using the internet or local publications, (b) walking, driving or biking around the area, or (c) interviewing residents. Take photos (if possible).
   • Internet resources
     o EPA’s “Surf your watershed” site http://cfpub.epa.gov/surf/locate/index.cfm
     o Science in your watershed http://water.usgs.gov/wsc/
     o Know your watershed http://www2.ctic.purdue.edu/kyw/kyw.html

2. Where does your water come from?
   • Find out if your home water is from a private well or the city.
   • If you have a private well, find out when it was made, when it was last tested and what the results were.
   • If you have city water, find out where the city gets its water and where the local treatment plant for drinking water is.

3. How much water do you use every day?
   • Create a data chart in your notebook where you can record how much water you use everyday.
   • The headings for you chart might include: shower/baths, toilet, brushing teeth, washing hands, washing dishes, etc.
   • Keep track of how many times you use water in each of the categories. You might also need to write down, for example, how long you were in the shower.
   • Use the reference materials at school to find out how much water you used each time.
   • Make a bar graph to show how much water you used in each category for that day.
   • Tally up how much water you used in a day.
   • Internet resources
• On-line water use calculator:  http://ga.water.usgs.gov/edu/sq3.html
• Down the drain – worldwide collaborative water use project http://www.ciese.org/curriculum/drainproj/

4. **How clean is the water from your tap?**

• Make a data chart in your notebook where you can record the results from your home water quality test.
• Follow the directions with the test strips to conduct each test and record the results.
• Water Test kit:  Waterworks School Test kit contains materials for students to test their home tap water for 9 parameters:  pH, alkalinity, hardness, free and total chlorine, iron, copper, and nitrate/nitrite using test strips and color charts.  http://sciencekit.com/waterworks-school-test/p/IG0022772/
• Be sure to record whether or not your water is from a private well or the municipal water supply.
• Use the reference materials at school to interpret your results – how safe is your tap water?

5. **How healthy is the local watershed?**

• Make a data chart in your notebook where you can record the results from your investigation of the school pond.
• Follow the directions with the water test kits to conduct each water quality test and record the results.
• Water Test kits:  LaMotte Green Water Monitoring Kit contains materials for students to test dissolved oxygen, nitrates, phosphate, turbidity, temperature as well as benthic macroinvertebrates and coliform bacteria in environmental water samples using safe test tabs and color charts.  http://sciencekit.com/lamotte-green-water-monitoring-kit/p/IG0022750/
• Collect, identify and count the macroinvertebrates you find in the pond and record the results.
• Take several photos of the water and vegetation around the edges with the class digital camera.
• Use the reference materials at school to interpret your results.
• Internet resources on the Chesapeake Bay
  •  http://www.chesapeakebay.net/
  •  Chesapeake Bay Foundation http://www.cbf.org/site/PageServer?pagename=homev3
  •  The Chesapeake for Kids http://www.beanies-webworld.com/chesapeake/index.html
  •  http://www.bayeducation.net/
India Workshops

Traditional Technologies

Textiles

- Science connections: solubility/solutions, symmetry, fibers
- Artifacts: samples of Indian textiles (tie-dye, batik, Khadi, block prints, etc), small loom, wooden block prints, photos of textile artisans.
- Activities
  - Experimenting with natural dyes
  - Testing fibers: strength, flexibility, stretchability, microscopic characteristics
  - Try out a technique (websites with instructions and suggestions cited below): tie dye, weaving, block printing, batik, and/or fabric painting
- Websites about weaving:
  - [http://www.galenfrysinger.com/weaving_in_india.htm](http://www.galenfrysinger.com/weaving_in_india.htm)
  - [video of weaving in India](http://video.webindia123.com/fashionfabrics/fashion/fashion1/index.htm)
  - photos of weaving and buying/selling rugs [http://www.jacobsenrugs.com/indpics.htm](http://www.jacobsenrugs.com/indpics.htm)
  - photos of weavers in India [http://www.jacobsenrugs.com/indpics.htm](http://www.jacobsenrugs.com/indpics.htm)
  - Directions for making a belt (Native American crafts) – While not a technique from India, finger weaving is a simple weaving technique that does not require a loom or specialized materials. [http://www.nativetech.org/finger/beltinstr.html](http://www.nativetech.org/finger/beltinstr.html) and [http://www.turtletrack.org/Issues01/Co12012001/CO_12012001_Weaving_2.htm](http://www.turtletrack.org/Issues01/Co12012001/CO_12012001_Weaving_2.htm)
- Websites with historical background information about the Indian textile industry (articles/information can be printed as is and/or summarized and printed with photos)
- Websites about block printing
  - Demonstration of block printing (youtube): [http://www.youtube.com/watch?v=Ej0D_qxBd2w&feature=related](http://www.youtube.com/watch?v=Ej0D_qxBd2w&feature=related)
  - [http://www.youtube.com/watch?v=5PkbQzGnP&feature=related](http://www.youtube.com/watch?v=5PkbQzGnP&feature=related)
- Websites about tie-dye technique
  - [http://www.pburch.net/dyeing/howtotiedye.shtml](http://www.pburch.net/dyeing/howtotiedye.shtml)
- Websites about natural dyes
Stone working and architecture
- Science connections: materials and their properties, geology (rocks and minerals), eco-friendly structures / conservation of energy
- Activities
  - Identification of rocks and minerals (hardness, luster, etc)
  - Design an eco-friendly house that fits your local environment.
  - Mosaics – plaster and tiles
- Web sites

Paper
- Science connections: fibers, recycling/sustainability
- Activity: Recycle paper and fabric to make home-made paper
- Websites
  - Rags to riches, papermaking [http://www.handsontv.info/series1/reports_13-18/Rags_To_Riches_India.html](http://www.handsontv.info/series1/reports_13-18/Rags_To_Riches_India.html)

Food
- Bread
  - Science connections: leavened or not?
  - Activity: Microorganisms -- An experiment with yeast
- Spices
  - Science connections: microbiology -- spices as preservatives:
  - Activities: Which spices will preserve food the best (by slowing the growth of bacteria and fungi)?
- Cheese
  - Science connections: microbiology, chemical changes
- Fruits and vegetables of India
  - Science connections: plant biology
  - Activities
    - Mango dissection and seed germination
    - Bananas! What percent of a banana is edible?
  - Websites:
    - Food safety [http://foodsafetyindia.nic.in/fruits.htm](http://foodsafetyindia.nic.in/fruits.htm)
Traditional Knowledge – new uses

- **Plants**
  - Anti-fatigue plants from Kerala
  - Neem tree (branches used for toothbrushes, extract used in shampoos),
  - Hong tree (source of non-edible oil used for fuel and other products)
  - Forest pharmacy (medicinal plants from Maharashtra)

Music

- Science connections: physics -- an exploration of sound
- Web sites
  - Musical Instruments of Indian (with photos)
    [http://www.chandrakantha.com/articles/indian_music/instruments.html](http://www.chandrakantha.com/articles/indian_music/instruments.html)
    [http://www.worldmusicalinstruments.com/t-indian-instruments.aspx](http://www.worldmusicalinstruments.com/t-indian-instruments.aspx) and
    [http://www.musicalinstruments.co.in/index.htm](http://www.musicalinstruments.co.in/index.htm)

Language and Literature

- **Artifacts:** books and printed materials in Hindi and other Indian languages, CD with spoken dialogues, bilingual books and Indian folktales (print and/or electronic)
- **Activities / projects:**
  - Participate in Hindi-language lessons (CD) and/or explore other Indian languages via the Internet (sites listed below)
  - Readers’ Theater production or puppet play based on Indian folktales
- **Websites**
  - Basic words in Hindi [http://www.hindilanguage.org/hindi/words.asp](http://www.hindilanguage.org/hindi/words.asp)
  - Additional resources for India and other places around the world at [http://globalstoriesforteens.wikispaces.com/](http://globalstoriesforteens.wikispaces.com/)