

Asia Research STEAM Project

ROADS to Asia Day will be on _____

Your Country: _____

You will complete a research project that focuses on one of the countries in Asia. You will research a particular country and determine important information and create a detailed visual presentation with the information you found. You will also create a physical model displaying an engineering/technology idea you have that demonstrates your understanding of the country's geographic problems or beneficial features. On _____, Grade 6 will have an Asia Celebration where you will each get the chance to share your projects.

For this project, you will work independently (but bouncing ideas off one another is more than welcome). You will be given class time to work on parts of the project, but some parts may also be worked on and/or completed at home. The more diligent you are with working in school and following directions, the less you will have to do at home.

Overview for Project:

➤ Part 1.) *Research Gathering*

Gather Research and Organize facts and factual effects (show cause and effect) for the essential question : What is the geography of _____ (country) and how does it impact the population and settlement?

- Follow the list of Information to Research- geographic aspects to find
- This information must be factual and be from credible, reliable resources (no Wikipedia). It will be used on your visual presentation in the form of paragraphs and to help create your engineering portion of the project.

Date Due: _____

➤ Part 2.) *Formal Writing*

Short, formal paragraphs typed and based on the research and your analysis (see list Information to Research)

Date Due: _____

➤ Part 3.) *Visual Tri-fold Presentation board*

Create an organized visual teaching board showing the facts you found as cause and effect and analyzed, and photos.

- Tri-fold board visual (will be explained as the project progresses)

Date Due: _____

➤ Part 4.) *Geographic Problem/Benefit-Solution Activity (Do Something)*- will be explained later as the project progresses

This will visually demonstrate your research and analysis of the research, while also giving your audience a possible technological/engineering idea based on the geography of the place.

Date Due: _____

* Late Work Notice- For each day that any part of the project is late after final deadlines have been given, you will have 10 points taken off of the final grades. Even if you are absent, your work is due on time (with the exception of family emergencies- provide a parent note).

Part 1.) Research Gathering (MUST BE FACTS AND FACTUAL EFFECTS YOU FIND)

*When researching, think geographically- what connects to what???

Minimum Required Information to Research

(* must use at least 3 different valid/credible/updated resources – no Wikipedia) –

- Size of land (square miles)
- Capital city and coordinates
- Type of land (island, peninsula, part of isthmus, part of continent etc.) and how they use it
- At least four examples of relative location . Explain how the location (absolute or relative) has impacted them?
- Climate (you must describe and explain the impact of different seasons, precipitation, temperature, drought issues , weather patterns like hurricanes)
- Specific important physical features of the land (mountains, deserts, water sources, volcanoes, rainforests, caves, coral reefs etc.)- why they are important and how impact economy (all effects must be supported with researched facts)
- Specific important physical features of the water (rivers, seas, oceans, coral reefs etc.)- why they are important and how impact economy (all effects must be supported with researched facts)
- List of major natural resources
- The major imports and exports (describe and explain the major economic activity)
- Any major human- environmental factors (e.g. deforestation, coral reef bleaching, flooding, or beneficial features)
- Size of population
- Statistics on the following: *religious groups, literacy rate, death rate, birth rate, infant mortality rate,*
- What are the major ethnic, religious, and language groups in the country (include percentages for each)? Are there conflicts? If yes, explain.
- Current government type with an explanation of how the government works, and if there are any current issues.
- One additional topic- CHOOSE FROM LIST OF “ADDITIONAL OPTIONS” below)

* Bolded = formal paragraphs for final (Part 2)

ADDITIONAL OPTIONS: (choose only one)

- Describe the political and social status of women in the country
- Describe a special part to the history of the country
- Describe child labor issues in the country
- Choose an important person from that country and explain their importance and contributions
- Any description of daily life in the country or in a specific part of the country
- Unique animals that can be found in the country
- Foods from the country
- Special festivals in the country
- Music, theater, and/or dance in the country
- Sports in the country
- Current technology being created or improved in the country
- Describe the levels of education and schooling in the country, who attends school, what school is like, and the importance of education in the country.

Plagiarism/Paraphrasing

- These two topics will be discussed in class. Points will be taken off if there is any sign of plagiarism. You must write everything in your own words. Use dictionaries and thesauruses to help you with vocabulary. (As I go around to boards on ~~the~~ Day and as I read your papers, I may ask you some questions. You will be asked about words you write in your paper and topics you wrote about. If you cannot explain it, you will have to lose points. NEVER WRITE SOMETHING YOU DON'T UNDERSTAND OR CAN'T EXPLAIN IN YOUR OWN WORDS!)

Name: _____

Organizing Informational Formal Writing

Use the research you found for the country you studied to plan and ^{for} organizing your formal informative paragraphs.

Remember :

- You must have a formal paragraph written for each bolded section under "Information to Research" on your directions sheet.
- You must use only facts you found to prove your information.
- Follow this format to help organize your writing. *THIS IS REALLY JUST A BRAINSTORM.

Title: _____

Opening/Thesis you will prove about your topic: *(Think)*

Details (facts (causes) and effects) and show/explain the significance/impact of the facts: (MAKE SURE THEY ALL RELATE BACK TO YOUR OPENING/THESIS.) *(Text & Show)*

Conclusion:

Typing Checklist

Type all paragraphs (bolded under “Information to Research” on directions sheet and planned on your organizer and all other “Information to Research” (each arrow)

- Use Times New Roman
- Titles no larger than 18 font size
- Paragraphs and other research no larger than 14 font size
- Write full sentences (no fragments or run-ons) for paragraphs
- Write lists/bullet points for all other information
- Check all spelling, capitalization, punctuation, grammar
- Read Aloud

Have you typed?:

- Size of land (square miles)
- Capital city and coordinates
- Type of land
- At least four examples of relative location
- **Climate**
- **Specific important physical features of the land**
- **Specific important physical features of the water**
- List of major natural resources
- The major imports and exports
- **Any major human- environmental**
- Size of population
- Statistics on the following: *religious groups, literacy rate, death rate, birth rate, infant mortality rate*
- Major ethnic, religious, and language groups in the country (include percentages for each)
- **Current government**
- **One additional topic**

Photos for Tri-Fold Board – Asia STEAM Project
ALL DUE BY/BEFORE FRIDAY, March 21st

You need a photo for each of the following categories (You may have more than one photo for any category.). Some photographs may overlap (ex: your land feature photos may show aspects of the climate in your country). You may bring in additional photos.

PICTURES MUST BE IN COLOR AND CLEAR.
THEY SHOULD BE LARGE (4x6 or 5x7 should work)
THEY MUST HAVE THE NAME OF THE PHOTOGRAPHER/SOURCE
YOU MUST HAVE THE NAME OF WHAT IS IN THE PHOTO IN A CAPTION

For each requirement, brainstorm what you will look for in each category based on what you wrote for your country.

- land features photographs from your country (specific and general)
(e.g.: specific- Gobi Desert general- volcanoes/caves from your country)

- water sources/ features photographs from your country (specific and general) (e.g. Mekong River)

- climate (and/or impact of climate evidence) _____

- Economic Activity _____

- Natural resources _____

- Environmental factors _____

- Your additional topic choice _____

- A physical map of your country

- A political map of the world (circle your country)

- A political map of your country

- Cultural pictures (dancing, food, art, people, government, ethnic groups etc.)

***You must speak to me well in advance before the photos are due if you are having trouble accessing photos.**

March 26, 2014

Dear Sixth Grade Parents/Guardians,

Hopefully you are well aware that the sixth graders have been working on an annual research and STEAM project on a given country incorporating many curriculum areas. One portion of this project has students identifying a geographical problem or beneficial feature in their country. Each student then works to find a solution to that problem or a way of using the beneficial feature in a more efficient way. Students have been using the Engineering Design Process to create designs to fit the need they chose. Each design will then be turned into a detailed 2-D diagram as well as a 3-D model; both of which will be displayed and presented on our "ROADS to Asia Day"!

This project will be completed in the classroom; however, a variety of materials will be needed to create the 3-D models in addition to the typical classroom materials such as crayons, markers, glue, and scissors that are available daily. Each student has compiled a list of materials he/she would like to use for their model in their "Asia Research STEAM Project Problem Solution Activity" packet.

Students have been reminded that their choice of materials needs to be realistic, and that they need to check with their families to be sure the gathering of these materials is possible. Materials do not have to be items that are bought in stores. They can be items collected around the home (paper towel rolls, fabric pieces, popsicle sticks, etc.) or backyard (sand, moss, sticks, etc.). Depending on the design your sixth grader has in mind, some portions of the model may need to be completed at home. If portions of the model need to be painted or constructed using tools and hardware, they need to be done at home and brought into school where the student will put the pieces all together and add other details. Please take the time to go over the design and materials listed with your sixth grader, and make any necessary changes. **All materials must be in school no later than Wednesday, April 2nd.**

In order to ensure all parents/guardians have received this information, and have discussed the availability of these materials, we request that you and your sixth grader complete and return **only** the bottom section of this sheet by Friday, March 28th.

If you have any questions, please do not hesitate to contact us.

Thank You,
The Sixth Grade Team

Sign, detach, and return below

I have read the above information and decided exactly which materials will be used for the 3D model.

_____ (Student Signature)

_____ (Parent/Guardian Signature)

3. Develop Possible Solutions

- a. Use the space provided below to brainstorm as many solutions/designs as you can come up with. You must have at least two!

- b. **Peer Share for Redesign-** Share your ideas with your classmates and build off of the conversation and feedback.

Record peer suggestions/comments below:

4. Choose the Best Solution

a. Complete a more finalized **idea** of the design/solution you chose.

(Bullet points are fine for this brainstorm)

- What is the possible solution? (Make sure it is doable for the country, and something they can afford and maintain while also being environmentally friendly.)
- Did you answer all the questions for why it is a problem or need?
- Explain how the solution works.
- How will the country afford this? What materials will they need? How will they get the materials? What do they already have that they can use?
- Why is this the best solution?

THIS INFORMATION WILL NEED TO BE WRITTEN IN A WELL-WRITTEN FORMAL PARAGRAPH AND TYPED.

5. Construct a Prototype

a. **Materials Needed:** List the materials you will need to make a 3D model of your solution in school. These are materials you will bring into school so be creative, but realistic (your parents will need to sign off that these materials can be bought/collected/borrowed/etc.).

- b. **Create a “2D Multi-View Diagram” of your solution.** This should be very neat and colorful. It will be a part of your project board and presentation so it needs to be your best work!

Diagram Requirements

- Done on long white paper
- Name of creation is given
- Includes 3 labeled views (front, side, top)
- Captions are provided to explain materials that would be used in real life (actual creation) as well as the function and purpose of certain components of your design
- Real world measurements for the actual creation are given using any unit of measurement- you will have to do some estimating
- All diagrams are neat, organized, and clear
- All diagrams are outlined **AND** colored neatly
- All writing is gone over with pen or thin marker
- All pencil marks are erased

- c. **Create 3D model** to present alongside your board on “ROADS to Asia Day”. Be sure it is neat and creative. It should show your best effort! (Remember to Test and Redesign when necessary)

Bring in all necessary materials. Due: _____

6.) Communicate

Make sure you have a typed paragraph for steps 2 (Research for why this is a problem or need) and 4 (Best solution explanation) found in this packet. Since you may have adjusted parts through redesign, make sure you use your most up-to-date information.

These must be well-written, formal paragraphs including all parts that were brainstormed. The titles should be no larger than 18 font, and the paragraphs should be no larger than 14 font. Use Times New Roman.

Rubric for Asia Research STEAM Project

Included	Points Possible	Your Points
Title (large and neat) country and essential question	2	
Name on back of presentation board	2	
Size of land (square miles)	2	
Capital City and Coordinates	3	
Type of Land	2	
At least 4 descriptive relative locations	4	
List of major natural resources	3	
Major imports and exports (economic activity)	3	
Size of population	2	
Statistics on the following: <i>religious groups, literacy rate, death rate, birth rate, infant mortality rate, major ethnic, religions, and language groups</i> in the country (include percentages for each)?	8	
Name and explain climate (you must describe and explain the impact of different seasons, precipitation, temperature, drought issues , weather patterns like typhoons) (Formal paragraph expectations)	10	
Name specific important land features (mountains, deserts, water sources, volcanoes, rainforests, caves, coral reefs etc.)- why they are important and how impact economy (all effects must be supported with researched facts) (Formal paragraph expectations)	10	
Name specific important water features of the water (rivers, seas, oceans, coral reefs etc.)- why they are important and how impact economy (all effects must be supported with researched facts) (Formal paragraph expectations)	10	
Explain any major human- environmental factors (e.g. deforestation, coral reef bleaching, flooding, or beneficial features) (Formal paragraph expectations)	10	
Explain current government type with an explanation of how the government works, and if there are any current issues. (Formal paragraph expectations)	10	
additional topic (Formal paragraph expectations)	10	
Colorful/clear pictures to help explain the information and captions & sources typed pictures. (cited correctly) -all required	10	
Political map of the country and Physical map of the country	4	
Problem or beneficial features is clearly identified and described/shown (details regarding why/how it is a problem or beneficial feature) (formal paragraph expectations)	20	
Solution/Idea is clearly identified and described (shown) with potential obstacles considered, the idea is environmentally friendly- (formal paragraph expectations)	20	
Model is clear and explained matching the idea/solution /detailed and well explained diagram	30	
Correct grammar/punctuation/spelling/capitalization/complete sentences/font sizes and style	15	
Board is neat, clear, and easy to follow	10	
	Total Possible: 200	Total Earned:

* 10 points deducted each day the presentation board/or parts of the presentation are late (not done on time in class)

* This grade counts in both geography and language arts as this project was completed as a cross-curriculum project. The engineering part with the problem, solution, and model/diagram is also counted in science.

*All information must be accurate to the specific country, and be on the project presentation board in order to receive credit.

*Problem/Solution packet must also be neat and appear with the presentation board.

Dear Parents/Guardians,

As an extra activity and little treat after all the hard work the students did on their Asia STEAM projects, we are inviting students to bring in a food to share with the grade if they would like to (this is optional). The food should be a recipe from the country the student studied. We ask that you **do not put seafood or peanuts in any of the foods**. Students can bring in the food on **Thursday, April 17, 2014**, and all trays and extras must be brought home that same day.

If you have any questions, please don't hesitate to contact

Sincerely

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