

Attention to Maps

Background: You have learned about the eight major regions of the North American continent. Each region has unique characteristics that influence the area's settlement by humans, its environment and weather patterns, and its natural resources.

Design Challenge: Design and create a map of your assigned region of the North American geographic map. Your map must be freestanding during your presentation. A description of the geographic features of the region must be displayed. Also, your map will be used along with the other region maps to create a floor puzzle of North America.

Criteria:

- Your project must display the characteristics of your assigned region using at least three different materials.
- Your project must be freestanding and convert to a flat floor puzzle piece and then back to freestanding.



<p>Materials: Select from the list below.</p>	<p>Tools: Select from the list below.</p>
<ul style="list-style-type: none"> • balloons • cardboard • card stock • construction paper • craft sticks • glue • masking tape (6 inches) • paper clips • paper fasteners • paper scraps • pipe cleaners • recyclable materials • straws • yarn 	<ul style="list-style-type: none"> • hole punch (standard and heavy-duty) • markers/crayons • pushpin paper drill • ruler • scissors (standard and decorative)

Targeted Standard of Learning: History and Social Science USI.2
 Supporting SOL: English 5.1, 5.2, 5.9

Targeted Standard for Technological Literacy: 10
 Supporting STL: 8, 9, 11

Tips for Teachers

Targeted Standards of Learning:

- History and Social Science USI.2 The student will use maps, globes, photographs, pictures, or tables to
- locate the seven continents and five oceans;
 - locate and describe the location of the geographic regions of North America: Coastal Plain, Appalachian Mountains, Canadian Shield, Interior Lowlands, Great Plains, Rocky Mountains, Basin and Range, and Coastal Range;
 - locate and identify the water features important to the early history of the United States: Great Lakes, Mississippi River, Missouri River, Ohio River, Columbia River, Colorado River, Rio Grande, St. Lawrence River, Atlantic Ocean, Pacific Ocean, and Gulf of Mexico;
 - recognize key geographic features on maps, diagrams, and/or photographs.

Supporting SOL: English 5.1, 5.2, 5.9

Targeted Standards for Technological Literacy:

- 10 Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.

Supporting STL: 8, 9, 11

Prior Knowledge & Skill	Materials & Preparation	Safety Issues	Class Management	Materials Provided	Design Process
<ul style="list-style-type: none"> Geographic regions of North America 	<ul style="list-style-type: none"> Check Design Brief for recommended materials. Trace a map of North America onto poster board prior to starting the project. 	<ul style="list-style-type: none"> Use of scissors and paper drill 	<ul style="list-style-type: none"> Small groups or pairs 	<ul style="list-style-type: none"> Design Brief Guided Portfolio (adapt as appropriate/optional) Rubric Assessments 	<p>Follow the Design Process:</p> <ul style="list-style-type: none"> Restate the problem. Brainstorm solutions. Create the best solution. Test the solution. Evaluate the solution.

Extension Idea: Create an advertisement enticing people to move to your region.

Differentiation Option: For students with more advanced reading skills, the following page is provided as an alternative to page 1.

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Guided Portfolio, p2

Name _____

2. Brainstorm solutions. Sketch and/or describe some possible solutions.

Guided Portfolio, p4

Name _____

4. Test your solution.

Does your map stand freely, lay flat, then stand again?	YES	NO
Does your map include three or more materials, not including the base poster board?	YES	NO
Does your map represent your assigned region accurately?	YES	NO
Do you fully describe the major geographic features of your region?	YES	NO

Guided Portfolio, p5

Name _____

5. Evaluate your solution.

Was your design the best solution? Would one of your other ideas have been better? Why, or why not?

What would you have done differently?

Could you add to it to make it better? What would you add to it?

Rubric for Attention to Maps

Name _____ Date _____

0—no evidence; 1—limited understanding; 2—some understanding with room for improvement; 3—good understanding with room for improvement; 4—substantial understanding

Design Brief Rubric	0	1	2	3	4
The student restated the problem in his/her own words.					
The student brainstormed more than one idea.					
The student kept notes and/or made sketches while creating a solution, to include problems and how they were solved.					
The student tested the map to make sure <ul style="list-style-type: none"> • it stands freely, lays flat, then stands again • it includes three or more materials, not including the base poster board • it represents the assigned region accurately • it contains a full description of the region’s major geographic features. 					
The student evaluated how he/she could make it better next time.					

Rubric for Attention to Maps

Name _____ Date _____

0—no evidence; 1—limited understanding; 2—some understanding with room for improvement; 3—good understanding with room for improvement; 4—substantial understanding

Communication: Speaking, Listening, Media Literacy Rubric		0	1	2	3	4
5.1 The student will listen, draw conclusions, and share responses in subject-related group learning activities. a) Participate in and contribute to discussions across content areas. b) Organize information to present reports of group activities. c) Summarize information gathered in group activities. d) Communicate new ideas to others. e) Demonstrate the ability to collaborate with diverse teams. f) Demonstrate the ability to work independently.						
5.2 The student will use effective verbal and nonverbal communication skills to deliver planned oral presentations. a) Maintain eye contact with listeners. b) Use gestures to support, accentuate, and dramatize verbal message. c) Use facial expressions to support and dramatize verbal message. d) Use posture appropriate for communication setting. e) Determine appropriate content for audience. f) Organize content sequentially around major ideas. g) Summarize main points as they relate to main idea or supporting details. h) Incorporate visual media to support the presentation. i) Use language and style appropriate to the audience, topic, and purpose.						

Standards of Learning

English (2010)

Communication: Speaking, Listening, Media Literacy Rubric

- 5.1 The student will listen, draw conclusions, and share responses in subject-related group learning activities.
- a) Participate in and contribute to discussions across content areas.
 - b) Organize information to present in reports of group activities.
 - c) Summarize information gathered in group activities.
 - d) Communicate new ideas to others.
 - e) Demonstrate the ability to collaborate with diverse teams.
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 - e) Determine appropriate content for audience.
 - f) Organize content sequentially around major ideas.
 - g) Summarize main points as they relate to main idea or supporting details.
 - h) Incorporate visual media to support the presentation.
 - i) Use language and style appropriate to the audience, topic, and purpose.

Research

- 5.9 The student will find, evaluate, and select appropriate resources for a research product.
- a) Construct questions about a topic.
 - b) Collect information from multiple resources including online, print, and media.
 - c) Use technology as a tool to research, organize, evaluate, and communicate information.
 - d) Organize information presented on charts, maps, and graphs.
 - e) Develop notes that include important concepts, summaries, and identification of information sources.
 - f) Give credit to sources used in research.
 - g) Define the meaning and consequences of plagiarism.

History and Social Science (2008)

Geography

USI.2 The student will use maps, globes, photographs, pictures, or tables to

- a) locate the seven continents and five oceans;
- b) locate and describe the location of the geographic regions of North America: Coastal Plain, Appalachian Mountains, Canadian Shield, Interior Lowlands, Great Plains, Rocky Mountains, Basin and Range, and Coastal Range;
- c) locate and identify the water features important to the early history of the United States: Great Lakes, Mississippi River, Missouri River, Ohio River, Columbia River, Colorado River, Rio Grande, St. Lawrence River, Atlantic Ocean, Pacific Ocean, and Gulf of Mexico;
- d) recognize key geographic features on maps, diagrams, and/or photographs.

Standards for Technological Literacy

Standard 8: Students will develop an understanding of the attributes of design.

Standard 9: Students will develop an understanding of engineering design.

Standard 10: Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.

Standard 11: Students will develop the abilities to apply the design process.

Please give us some feedback.

Complete the form below to let us know how this design brief worked for you and your students. Please be specific so that we might use your suggestions to improve the activity. *You can fill this out on your computer, or you can print it, fill it out manually, and scan it.*

Teacher: _____

School: _____

School division: _____

Design brief title: _____

Background	<i>Put an X in the appropriate column:</i>	Needs to be rewritten	Needs minor adjustment	Is ready for classroom use
Does it set the context for the activity?				
Is it age-appropriate in language, length, and complexity?				
Does it reference prior learning and/or research that the students did that will facilitate designing a solution to a problem?				
Is it detailed enough that an adult will understand the purpose for the design brief?				
COMMENTS. <i>If any of the questions above are marked other than "ready for classroom use," please provide suggestions here.</i>				

Design Challenge	Needs to be rewritten	Needs minor adjustment	Is ready for classroom use
Does the challenge support your curriculum?			
Is it age-appropriate in language, length, and complexity?			
Is it detailed enough that an adult will understand the purpose for the design brief?			
COMMENTS. <i>If any of the questions above are marked other than "ready for classroom use," please provide suggestions here.</i>			

Criteria Criteria are part of the challenge. They set the limitations for the design. They are not directions.	Needs to be rewritten	Needs minor adjustment	Is ready for classroom use	N/A
Are the limitations age-appropriate?				
Do the limitations encourage critical thinking?				
Is the application of mathematic knowledge/skills integrated into the criteria? If not, should the skill area be addressed?				
Is the application of science knowledge/skills integrated into the criteria? If not, should the skill area be addressed?				
Is the application of social studies knowledge/skills integrated into the criteria? If not, should the skill area be addressed?				
Are language skills integrated into the criteria? If not, should the skill area be addressed?				
COMMENTS. <i>If any of the questions above are marked other than "ready for classroom use," please provide suggestions here.</i>				

Materials Materials help set the limitations for the design. The list should include materials that might work.	Needs to be rewritten	Needs minor adjustment	Is ready for classroom use	N/A
Does the materials list encourage a variety of design solutions?				
Does the materials list include a variety of choices for joining items?				
Does the materials list include materials that force students to make decisions?				
COMMENTS. <i>If any of the questions above are marked other than "ready for classroom use," please provide suggestions here.</i>				

Tools Tools can be used in the construction of the designed product. They are used to manipulate materials. They cannot become part of the product.	Needs to be rewritten	Needs minor adjustment	Is ready for classroom use
Are the tools listed age appropriate?			
Are all tools needed for the activity included?			
COMMENTS. <i>If any of the questions above are marked other than "ready for classroom use," please provide suggestions here.</i>			

Standards of Learning	Yes	No
Does the design brief reinforce the targeted Standard of Learning(s)?		
Are the supporting Standards of Learning appropriate?		
What Standards of Learning would you add or remove?		

Standards for Technological Literacy	Yes	No
Does the design brief reinforce the targeted Standard(s) for Technological Literacy?		
Are the supporting Standards for Technological Literacy appropriate?		
What Standards for Technological Literacy would you add or remove?		

Tips for Teachers	Yes	No
Are the tips listed in the chart helpful for a first-time teacher?		
What tips would you add?		

Guided Portfolio	Needs to be rewritten	Needs minor adjustment	Is ready for classroom use
Are the instructions and questions age appropriate and clear?			
In the "Test your solution" section, do the questions force students to thoroughly test their solutions?			
In the "Evaluate your solution" section, do the questions force students to honestly evaluate their solutions			
COMMENTS. <i>If any of the questions above are marked other than "ready for classroom use," please provide suggestions here.</i>			

<p>Additional Comments Please use this area to provide general suggestions for improving this design brief.</p>