This is one of six lesson plans derived from Hometown Teams: How Sports Shape America, a traveling exhibition organized by the Smithsonian Institution’s Museum on Main Street program and brought to you by your state humanities council. The materials and activities were compiled to help students observe, encounter, participate, and learn about the importance of and impact of sports in American communities.

The lesson plans that accompany Hometown Teams will help you create meaningful and fun experiences for your students, based on current common core standards for grades 6-10. All the lessons can be adapted for younger or older audiences, so evaluate each lesson before selecting activities for your students.

Help us gauge the effectiveness of the educational activities for Hometown Teams: How Sports Shape America. Please take this short survey and let us know how you used these materials. Your input is much appreciated.

Sincerely, The Museum on Main Street Team

Hometown Teams is a Museum on Main Street exhibition organized by the Smithsonian Institution Traveling Exhibition Service. Funded by the U.S. Congress. Education materials generously supported by the Smithsonian Women’s Committee.
LESSON PLAN 2: Fields of Glory

LESSON OVERVIEW

**TOPIC:** Sports/Facilities

**CORE QUESTION:** What is involved in the design of a sports facility or field?

**MISSION:** Propose a design for a new addition or improvement to a local sports facility, and present your ideas to relevant groups.

**OBJECTIVES:** Through various proposed activities, students may:

- Analyze primary sources and employ research strategies to obtain primary data from targeted collections of sources
- Pose historical and design questions after analyzing and reflecting on primary sources
- Express original arguments in written and spoken form
- Use subject-specific vocabulary in constructing an argument
- Apply principles of math to real-world scenarios
Hometown Teams Lesson Plan 2: Fields of Glory

COMMON CORE STANDARDS GRADES 6–8

MATH

CCSS.Math.Content.7.G.B.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

CCSS.Math.Content.7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.

ENGLISH/LANGUAGE ARTS

CCSS.ELA-Literacy.RST.6-8.2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

CCSS.ELA-Literacy.W.7.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CCSS.ELA-Literacy.SL.7.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

SCIENCE

CCSS.ELA-Literacy.RST.6-8.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

CCSS.ELA-Literacy.RST.6-8.9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
TRY IT!

Apply geometric methods to solve design problems.

COMMON CORE STANDARDS GRADES 9–10

MATH

CCSS.Math.Content.HSG-MG.A.3 Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).

ENGLISH/LANGUAGE ARTS

CCSS.ELA-Literacy.RST.9-10.2 Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.

CCSS.ELA-Literacy.W.9-10.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

CCSS.ELA-Literacy.SL.9-10.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

SCIENCE

CCSS.ELA-Literacy.RST.9-10.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.

CCSS.ELA-Literacy.RST.9-10.9 Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
HOMETOWN TEAMS Exhibition Field Trip: Suggested Activities

You might consider doing one or both of these activities when visiting the Hometown Teams exhibit.

1. Divide students into small groups of 2-3, and assign each group to look at one of the stereoscope images in the “Fields of Glory” section of the exhibit. Ask each group to observe the image closely and develop a list of pros and cons of the facility’s design, thinking about perspectives of players, fans, coaches, referees. Ask each group to share their thoughts.

2. Ask students to briefly explore the Hometown Teams exhibit, then do a short activity (10–15 minutes) where each student designs a dream stadium/field for his/her favorite sport using paper and pen. Ask students to share and discuss what qualities of their designs made them ideal, and how their design would make the experience of the sport better for all involved.

Discuss the following questions with the group:

- What are some of the sports facilities in this town?
- Do you think there are any problems in the design of those facilities for players?
- Do you think there are any problems in the design of those facilities for fans?
- Are there any sports stadiums/arenas around the world that you think are great examples of design?

Coach Dorothy Franco-Reed encourages a player during a volleyball match. Photo by Tom Reed.
RESOURCES TO EXPLORE

IN THE COMMUNITY

- Hometown Teams exhibit
- Local museum or historical society
- School library or hall of fame
- Local parks/sports fields
- Sports equipment stores
- Local urban planning/parks departments
- Local or school health office/department

ONLINE

Listing of stadiums around the world: http://www.worldstadiums.com/north_america/countries/united_states.shtml

Stadium design flaws: http://www.realclearsports.com/lists/stadium_design_flaws/

Roomle, free 3D-visualization and design software: http://www.roomle.com/


EXPLORE!

Find resources both in local communities and online.
ACTIVITIES FOR STUDENTS

You might choose to include all or some of the activities below in lessons for the project.

**MISSION**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERVIEW</strong></td>
<td>interview teams and coaches who use the sports stadium or field you’ve decided to focus on to determine what changes they would want to see made.</td>
</tr>
<tr>
<td><strong>RESEARCH</strong></td>
<td>research designs of sports stadiums/fields across your state, and compare the similarities and differences between them.</td>
</tr>
<tr>
<td><strong>EXPLORE</strong></td>
<td>explore the area surrounding the sports stadium or field you’ve decided to focus on, and identify what plant and animal life might be impacted by new design.</td>
</tr>
<tr>
<td><strong>USE</strong></td>
<td>use geometric methods to develop a 3D model of your proposed addition or improvement. How much space and materials will be needed?</td>
</tr>
<tr>
<td><strong>WATCH</strong></td>
<td>watch videos of buildings or parks under construction. Identify what properties of physics are involved in the construction of a facility.</td>
</tr>
<tr>
<td><strong>RESEARCH</strong></td>
<td>research archived newspapers, yearbooks, or other collections to learn about the history of the stadium/field. Has its use changed over time?</td>
</tr>
</tbody>
</table>
GUIDING QUESTIONS FOR STUDENTS

- What would improve the quality of sports played in this sports facility?
- What kinds of movements take place in this facility—on the part of both players and fans?
- What kind of materials would have to be involved in your proposed design?
- What impact would your proposed addition or improvement have on the surrounding environment?
- How much would the project cost?

FINAL STEPS FOR STUDENTS: Choose a format (paper, website, infographic, video recording/documentary, performance) appropriate to present your new sports facility, and create talking points so that you can present your ideas to others.
SKILLS RUBRIC

Student demonstrated ability to collect and examine information about the community

**BEGINNING:** Student returns from site visit with minimal evidence

**DEVELOPING:** Student returns from site visit with variety of evidence, but much of it is not project-specific

**ACCOMPLISHED:** Student returns from site visit with variety of evidence, and some of it is project-specific

**EXEMPLARY:** Student returns from site visit with thorough, project-specific evidence

Student demonstrated ability to analyze primary sources and employ research strategies to obtain primary data from targeted collections of sources

**BEGINNING:** Student relies on one website to conduct research

**DEVELOPING:** Student relies on one website and one other source medium (book, newspaper, interview)

**ACCOMPLISHED:** Student uses a variety of media to conduct research, including more than one of each: website, book, news article, interview

**EXEMPLARY:** Student uses a variety of media to conduct research, including more than one of each: website, book, news article, interview, museum/historic society archives and/or objects

Student demonstrated ability to reflect on and revise work for project

**BEGINNING:** Student’s work shows no evidence of incorporating feedback/comments

**DEVELOPING:** Student completes several revisions of work, showing evidence of incorporating feedback/comments, but changes made unwillingly

**ACCOMPLISHED:** Student shows desire to make changes and completes several revisions of work, showing evidence of feedback/comments, but changes made with significant facilitation

**EXEMPLARY:** Student is entirely self-directed, and completes several revisions of work, showing evidence of incorporating feedback/comments
SKILLS RUBRIC (continued)

Student demonstrated subject-specific vocabulary as relevant to the project

**BEGINNING:** Student rarely uses vocabulary beyond initial discussions

**DEVELOPING:** Student uses at least one relevant vocabulary term each session

**ACCOMPLISHED:** Student uses at least two relevant vocabulary terms each session

**EXEMPLARY:** Student uses at least three relevant vocabulary terms each session

Student demonstrated initiative in activities of project

**BEGINNING:** Student is off-task completely

**DEVELOPING:** Student is directed by teacher to revise work

**ACCOMPLISHED:** Student seeks facilitation from teacher and is then self-directed

**EXEMPLARY:** Student is self-directed

FYI!

Five additional lessons can be found on the Museum on Main Street website in both .pdf and .ePub formats.

A total of six Hometown Teams lesson plans are available free of charge as both .pdf files and a downloadable .ePub for mobile devices at the Museum on Main Street website.

Don't forget to take a few moments to help us improve our educational materials by taking a quick survey. Thanks in advance.