Lesson 4 – Post-Visit
The Tools of Sports Safety

Objective: Students will be able to:
- Reflect on the information gained from their learning experience with the Baseball Hall of Fame.
- Collect information about protective gear.
- Work collaboratively to construct a clearly organized and informative poster.
- Articulate a clear argument as to why certain equipment should be introduced to the game of baseball.

Time Required: 1-2 class periods

Materials Needed:
- A variety of sports magazines, especially those devoted to a particular sport.
  Examples include the following:
  - Mountain Bike Action
  - The Hockey News
  - Ride BMX
  - Inside Lacrosse
  - Pro Football Weekly
  - Pedal
- Internet access for student research
- Printed copies of "Protective Gear Design" worksheets for all students (included)
- Poster board or large construction paper
- Markers or colored pencils
- Scissors
- Tape or glue

Vocabulary:
Innovation - A new idea, method, or device
Applicable Common Core State Standards:

**CCSS.ELA-Literacy.SL.9-10.1, SL.11-12.1** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade-appropriate topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

**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.

**CCSS.ELA-Literacy.SL.11-12.4** Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

**CCSS.ELA-Literacy.WHST.9-10.4, WHST.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

**CCSS.ELA-Literacy.WHST.9-10.7, WHST.11-12.7** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

**CCSS.ELA-Literacy.WHST.9-10.8, WHST.11-12.8** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

**CCSS.ELA-Literacy.WHST.9-10.9, WHST.11-12.9** Draw evidence from informational texts to support analysis, reflection, and research.
Innovation: Tools of the Trade – Level 3

Additional Relevant National Learning Standards:
(Based on Mid-continent Research for Education and Learning)

**Technology. Standard 3. [Level IV Grade 9-12].** Understands the relationships among science, technology, society, and the individual

**Technology. Standard 4. [Level IV Grade 9-12].** Understands the nature of technological design

**Technology. Standard 6. [Level IV Grade 9-12].** Understands the nature and uses of different forms of technology

**Thinking & Reasoning. Standard 5. [Level IV Grade 9-12].** Applies basic trouble-shooting and problem-solving techniques
Lesson & Activity

1. Start this lesson by asking students to reflect on their experience with the Baseball Hall of Fame. Hold a discussion about the changes in baseball equipment over time. In what ways have different types of equipment evolved over time? Why?

2. Lead a class discussion on how equipment design for sports meets the specific needs of the athletes involved.

3. Discuss that, as you learned in your experience with the Baseball Hall of Fame, many innovations in baseball protective gear were inspired by safety equipment used in other sports. For example,
   - Catcher's shin guards: Cricket
   - Catcher's mask: Fencing
   - Full-head catcher's mask: Ice Hockey

4. Ask students, "How did the design of shin guards and catcher's masks meet the needs of catchers?"

5. Give each student a "Protective Gear Design" graphic organizer. Divide students into 6 small groups. Explain that each group will examine the safety equipment used by another sport to see if you can use or modify that equipment to improve the protective gear used in baseball.

6. Have each group choose one sport from the following list (or have them choose another sport of interest) that they would like to focus on for their final project:
   - Football
   - Lacrosse
   - BMX/Motocross
   - Cricket
   - Ice Hockey
   - Paintball

7. Have students research the protective gear of their chosen sport using sports magazines, as well as the internet. By the end of the first class period, each group should have compiled a sizeable list of different pieces of protective gear used by athletes in their chosen sport.
8. Have students assess which equipment used for their chosen sport could be used or modified for baseball players, and why.

9. Distribute poster board and art supplies evenly among the groups.

10. Each group should now create a poster featuring images of the equipment they recommend for baseball and drawings of the equipment modifications they would suggest to make the equipment useful for baseball. The posters should address the following questions:
   - What do you think is the most important safety need for baseball players?
   - How will your new equipment meet the safety needs of baseball players?
   - What will make your new equipment functional?
   - What will make your new equipment appealing to baseball players?

11. Pair up the small groups and have them evaluate one another's work. Each group should provide the other with feedback and recommend changes to improve their equipment.

12. Have each group turn in a one-page reflection about what they might change after receiving feedback on their design plan.

**Conclusion:**

To conclude this lesson and check for understanding, host a mock design award show using the students' work. As class, decide what categories you will use for the awards. The following is a list of suggestions:
- Most Original Design
- Most Practical Design
- Most Attractive Design
# Protective Gear Design

Names: __________________________    Date: __________
_________________________________
_________________________________
_________________________________

**Sport:** ______________________

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Body Part(s) Protected by This Equipment</th>
<th>Would This Equipment be Useful for Baseball?</th>
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Protective Gear Design - Continued

Discuss and address the following questions:

1. What do you think is the most important safety need for baseball players?

   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

2. How will your new equipment meet the safety needs of baseball players?

   __________________________________________________________________________
   __________________________________________________________________________
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3. What will make your new equipment functional?

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4. What will make your new equipment appealing to baseball players?

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