

Name: _____

Class: _____

Advancements in Softball

GRADES 6-8

Select your stance regarding instant replay: For or Against.

Brainstorm: What problems do increased use of instant replay in softball solve?

OR

What problems do increased use of instant replay in softball cause?

Criteria for Improvements/Changes of Instant Replay	Constraints for Improvements/Changes of Instant Replay

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Letter to NCAA Softball League Officials:

Does science and technology of instant replay make softball more fair? Would an increased use of instant replay enhance or detract from the game? How can instant replay be improved to meet the needs of all stakeholders (players, coaches, fans)?



Capstone

Women in STEM and Sports

Objective: Students will identify groundbreaking women in STEM and Sports. Students will research and summarize essential information from online sources.

Standards

The Nature of Science in the Next Generation Science Standards

Understandings about the Nature of Science
Science is a Human Endeavor

- Men and women from different social, cultural, and ethnic backgrounds work as scientists and engineers.
- Scientists and engineers rely on human qualities such as persistence, precision, reasoning, logic, imagination and creativity.
- Scientists and engineers are guided by habits of mind such as intellectual honesty, tolerance of ambiguity, skepticism and openness to new ideas.

Source: [APPENDIX H](#)

Supplies Provided

Poster Templates (paper and digital) and Peer Observation Form

Materials Needed

Internet Access and Printer (for digital usage)

Engage: Ask students to list their idols or heroes in Sports and STEM fields, recording them on a list together. Ask students to identify trends and record three things they notice about the list, two people they think are missing, and one question they have about the list. Then direct students to observe who they selected by gender, race, and socioeconomic status.

Explore: Have students select one of the STEM-centric women in the provided list or select a woman of their choosing. There are many other women to feature outside of this list. Have students use the internet and the template provided to create a poster highlighting the person's education, accomplishments in STEM, and biographical facts. Encourage students to cite their sources.

STEM-Centric Women	
Rachel Carson	Hertha Ayrton
Grace Hopper	Karen Horney
Alice Ball	Nettie Stevens
Marie Curie	Florence Bascom
Rosalind Franklin	Mary Anes
Jane Goodall	Lise Meitner
Chien-Shiung Wu	Lillian Gilbreth
Sally Ride	Emmy Noether
Hypatia	Edith Clarke
Maria Sibylla Merian	Marjory Stoneman Douglas
Wang Zhenyi	Gerty Cori
Mary Anning	Joan Beauchamp
Ana Loveplace	Cecella Payne Gaposchkin
Elizabeth Blackwell	Barbara McClintock
Bessie Coleman	Maria Geoppert Mayer
Kimberly Bryant	Treena Livingston Arinzeh
Flemmie Pansy Kittrell	Betty Harris
Joan Murrell Owens	Khalia Braswell
Angie Turner King	June Bacon-Bercey
Carolyn Brooks	Shirley Ann Jackson
Laura Weidman Powers	Alexa Canady
Mary Styles Harris	Jane Cooke Wright
Alice Ball	Euphemia Lofton Haynes
Cheryl L. Shavers	Marie Maynard Daly
Patricia Bath	Evelyn J. Fields
Wangari Maathai	Annie Easley

Women in Athletics

Name	Sport	Name	Sport
Cat Osterman	Softball	Nancy Lieberman	Basketball
Lisa Fernandez	Softball	Manon Rhenaume	Hockey
Jessica Mendoza	Softball	Becky Hammon	Basketball
Jennie Finch	Softball	Kathryn Smith	Football
Dot Richardson	Softball	Ibitihaj Muhammad	Fencing
Jessica Mendoza	Baseball	Tracy Caulkins	Swimming
Jackie Mitchell	Baseball	Mo'no Davis	Baseball
Kim Ng	Baseball	Bonnie Blair	Speed Skating
Wilma Rudolph	Track	Martina Nauratlova	Tennis
Jane Guthrie	Motor Racing	Florence Griffith Joyner	Track and Field
Althea Gibson	Tennis/Golf	Serena Williams	Tennis
Billie Jean King	Tennis	Mia Hamm	Soccer
Babe Didrickson Zaharias	Golf	Megan Rapinoe	Soccer
Ann Meyers Drysdale	Basketball	Joy Faucett	Soccer
Danica Patrick	Motor Racing	Julie Fleeting	Soccer
Lisa Leslie	Basketball	Alex Morgan	Soccer
Shannon Eastin	Football	Lyn St. James	Motor Racing
Julie Krone	Horse Racing	Jackie Joyner-Kersey	Track and Field
Ronda Rousey	Martial Arts	Pat Summitt	Basketball
Gertrude Ederle	Swimming	Caster Semenya	Soccer
Veronica Ivy	Cycling	Mianne Bagger	Golf
Laurel Hubbard	Weightlifting	Beryl Burton	Cycling
Marianne Vos	Cycling	Michelle Muldoon	Cycling
Emily Batty	Cycling	Lynn Hill	Rock Climbing
Junko Tabei	Rock Climbing	Margo Hayes	Rock Climbing
Angela Eithier	Rock Climbing	Lindsey Vonn	Skiing
Kelly Clark	Snowboarding	Deborah Compagnoni	Skiing
Karine Ruby	Snowboarding	Michelle Kwan	Figure Skating
Simone Biles	Gymnastics	Kristi Yamaguchi	Figure Skating
Shannon Miller	Gymnastics	Shirley Muldowney	Motor Racing

Explain: Tell your students about the beginning of Sports and STEM, and how women and people of color were often not allowed to participate and often seen and treated as inferior. Over time, pioneer women fought for the right to participate in and be treated like equals in Sport and STEM professions. Representation in Sports and STEM is important. Especially, finding heroes that are like you to see ourselves in those roles.

1. Ask students to think about how they feel represented in Sports. Do they see people like themselves in advertisements and/or televised professional sports programs?
2. Ask students to think about how they feel represented in STEM. Do they see people like themselves in movies and television in the roles of scientists and engineers? Do they know someone in the field of STEM?

Elaborate: Have students select one of the women athletes provided or select a women athlete of their choosing (there are many other athletes to select outside this list). Have students use the internet and the template provided to create a poster highlighting the athletes successes and influence on the sport. Encourage students to cite their sources.

Evaluate: Have students display both posters around the room and do a *gallery walk*. Have students record information from their peers' posters.

Extend: Students could create a poster of themselves as an athlete or STEM professional in the same format.

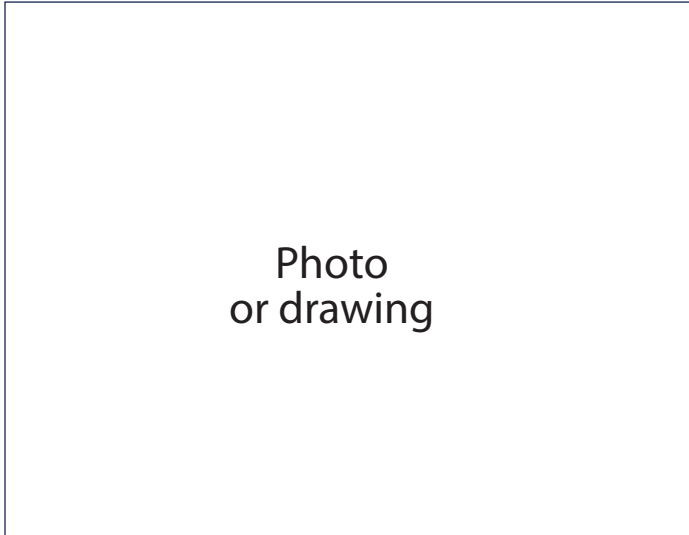


Photo
or drawing

Source of photo:

Accomplishments

Paragraph about her accomplishments.

Inspiration

Paragraph about why she and her accomplishments matter to inspiring future athletes.

Fun Facts

Source: give credit to where the facts came from

Poster Created By:

Quick Facts: Biography

Known For:

Education:

Career:

Fun Fact:

Photo
or drawing

Source of photo:

Accomplishments + Discoveries

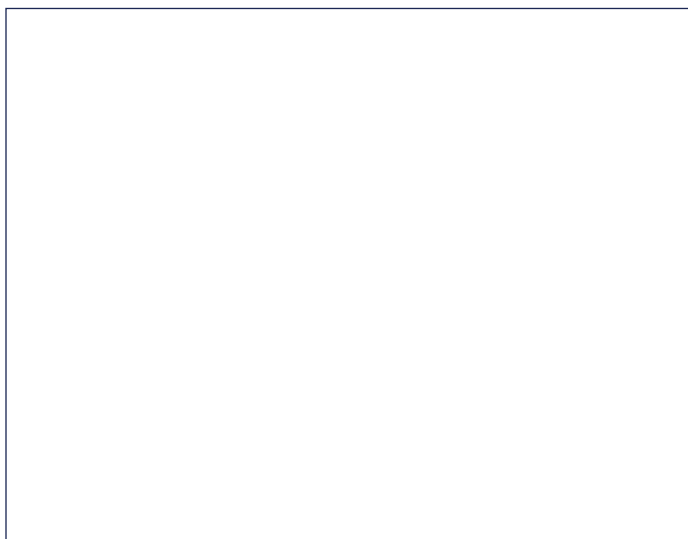
Summary paragraph of accomplishments, discoveries or other notable information.

**"Quote from your
person."**

- First name Last name

Name of Athlete

Sport | Position



Accomplishments

Source of photo:

Inspiration

Fun Facts

Source:

Poster Created By:

Quick Facts: Biography

Known For:

Education:

Career:


Fun Fact:

Quote

Name of Subject


Title

Birthdate - Deathdate



Source of photo:

Accomplishments + Discoveries



Name: _____

Class: _____

Capstone

GRADES 6-8

Peer Observation Form - SPORTS

Student name: _____ Selected Person: _____

Summary of accomplishments:

How did this person influence Sports:

A question you have about this person:

Peer Observation Form - STEM

Student name: _____ Selected Person: _____

Summary of accomplishments:

How did this person influence STEM:

A question you have about this person: