

# Human Body Project

Nervous, Muscular, Skeletal Systems

Due Date: March 13, 2015

**Task:** Demonstrate your understanding of the three body systems listed above and how they contribute to the execution of a particular motion.

1. Choose a motion that is of interest to you – such as throwing a baseball, shooting a hockey puck, delivering a karate kick, or performing a pirouette. Focus in on just one particular movement of one joint that is involved performing that activity. For example, the extension of the elbow while throwing a baseball.
2. Starting with the outside stimulus ( the catcher’s signal, the musical cue for a dancer, etc. ) outline the process that the person’s body must perform in order to complete the motion you are focusing on.
3. Using your book, our class notes, and outside research learn about the basic functioning of the three required body systems ( nervous, muscular, and skeletal ). Fill out the worksheets included in this packet for each system.
4. Your project must include details about the following:
  - a. Which bones, muscles, and joints are involved in the motion.
  - b. A description of the neural pathways that are involved in stimulating and coordinating this motion.
5. Information regarding the three required systems, if done well, will earn you a ‘B’ on this project. If you wish to earn an ‘A’ then you must include information from additional body systems such as the digestive, circulatory and/or respiratory. Think about how muscles cells get glucose needed for energy, how they get rid of the waste products from cellular respiration, and how they receive needed oxygen.

**Project Choices: You must demonstrate your knowledge of these systems and movements by creating one of the following:**

Poster

Storyboard or comic strip

Original textbook page

Model with descriptive text

Other project type (pre-approved by your teacher)

**Project Grading:** Your project grade will depend upon your use of accurate scientific information and vocabulary, how completely you describe your activity and the systems that contribute to it, how well you complete the basic information worksheets and how much additional information you include. Points for creativity and overall presentation