

Chapter 1: Laboratory Experiences

What Is Biomechanics?

NAME: _____

DATE: _____

1. Working in a group of 3–5 students, choose three human movements or motor skills with which you are all familiar. (A vertical jump is an example.) For each movement, list at least three general questions and three specific questions that an analyst might choose to answer.

Movement/Skill 1

--

General Questions

1.	
2.	
3.	

Specific Questions

1.	
2.	
3.	

Movement/Skill 2

--

General Questions

1.	
2.	
3.	

Specific Questions

1.	
2.	
3.	

Movement/Skill 3

--

General Questions

1.	
2.	
3.	

Specific Questions

1.	
2.	
3.	

- Working in a group of 3–5 students, choose a human movement or motor skill with which you are all familiar, and have two members of the group simultaneously perform the movement several times as the group observes. Based on your comparative observations, list any differences and similarities that you can detect. Which of these are of potential importance and which are more a matter of personal style?

Movement Differences	Important? (Y/N)

Movement Similarities	Important? (Y/N)

- Working in a group of 3–5 students, view a previously taken video or film of a human movement or motor skill performance. After viewing the movement several times, list at least three general questions and three specific questions that an analyst might choose to

answer regarding the movement.

General Questions

1.	
2.	
3.	

Specific Questions

1.	
2.	
3.	

4. Having completed Laboratory Experiences 1–3, discuss in your group the relative advantages and disadvantages of each of the three exercises in terms of your ability to formulate meaningful questions.
5. Have one member of your group perform several trials of walking as the group observes from front, side, and rear views. The subject may walk either on a treadmill or across the floor. What observations can be made about the subject's gait from each view that are not visible or apparent from the other views?

Front View Observations

--

Side View Observations

--

Rear View Observations

--