

PRACTICE

Activity 5: Putting Together Gravitational Interaction Ideas

Name _____ Date _____ Class _____

Analyze and explain following *How To Write an Analysis and Explanation*. All of the analyses should include the *interacting objects and their interaction type*, and *labeled force arrows* showing the forces being exerted on the object named in the task, but you will not draw energy diagrams. Be sure that you would get a good evaluation using *How To Evaluate an Analysis and Explanation*.

What goes up...

1. A softball player hits a pop fly straight up into the air. After the softball leaves the bat, *why does the softball slow down as it moves upward away from the bat?* (You may ignore the drag interaction, since it is very small.)

Analysis:

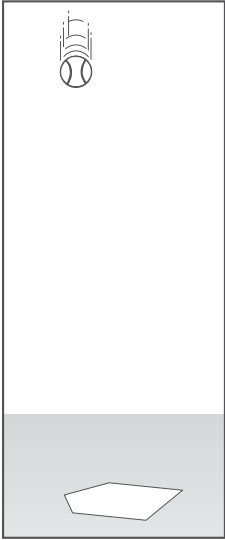
Force Arrow Diagram:



Explanation:

...must come down!

2. After the softball reaches the highest point of its path, it falls back to the field. *Why does the softball speed up as it moves downward toward the ground?* (You may ignore the drag interaction, since it is very small.)



Analysis:

Force Arrow Diagram:

Explanation:

3. Two planets have the same size but Planet A is more massive than Planet B. How does the weight of a book on Planet A compare with the weight of the same book on Planet B?

Analysis:

Force Arrow Diagram:

Explanation:
