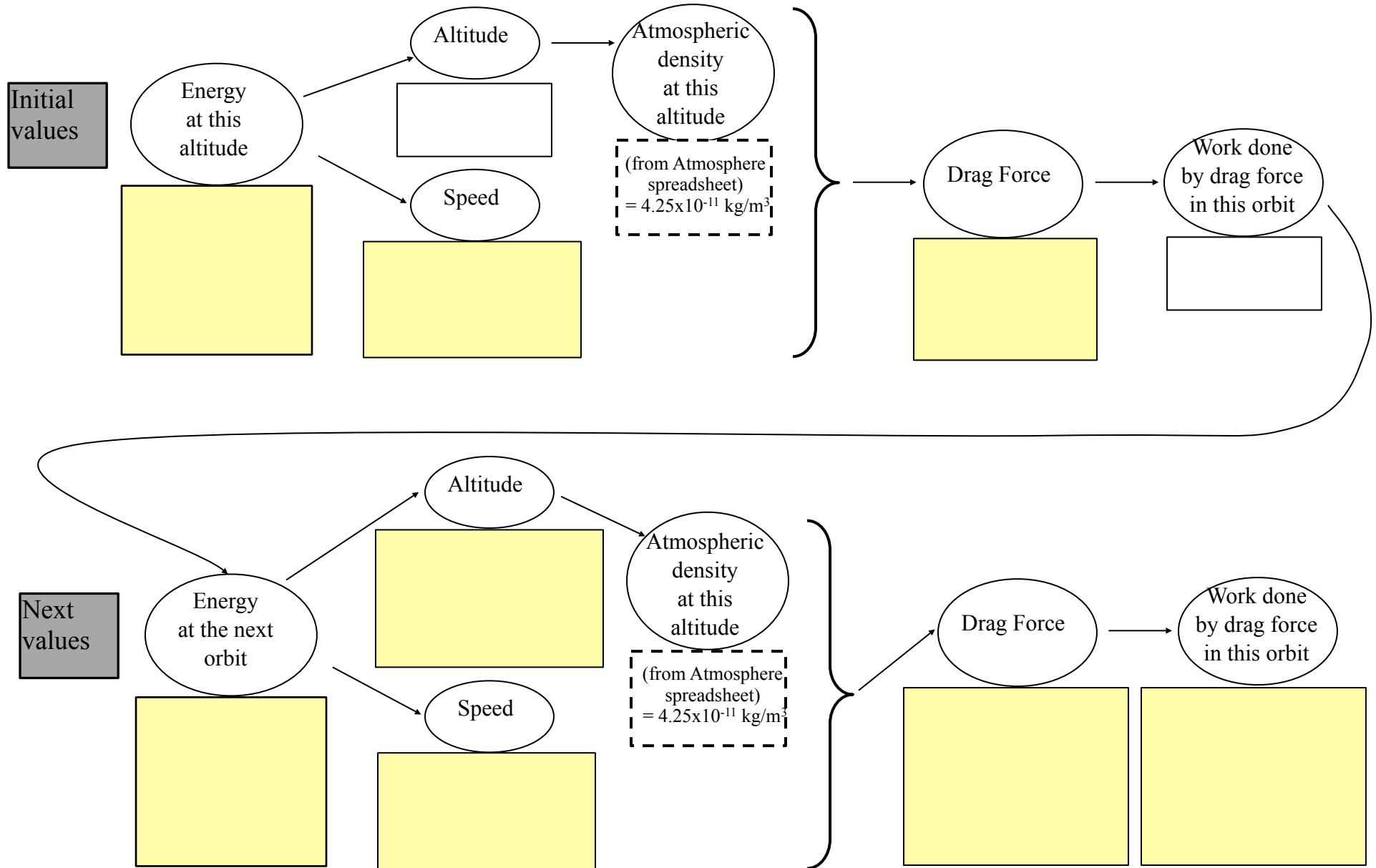


### Orbital Drag Laboratory Worksheet

NAME \_\_\_\_\_  
SECTION \_\_\_\_\_

Flowchart of Orbit Decay Model:



**“The Big Picture” Questions to think about:**

1. What are the assumptions which limit the utility of the (simple) Law of Atmospheres? How did we improve on this by using the MSIS model?
2. What happens to the atmosphere as it heats up?
3. What parameters affect the duration of a shuttle mission?
4. What happens to the energy (total mechanical, kinetic, and potential) of a satellite as it experiences atmospheric drag?
5. Why was an iterative technique required in this lab to calculate shuttle altitude?
6. What process did you use to model the orbital decay? (Write a summary in a few sentences that outlines the steps.)