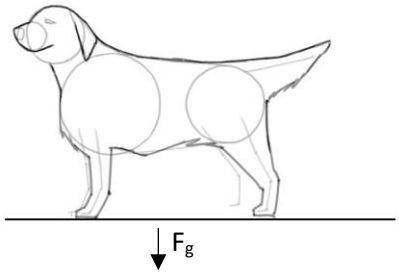
Mechanical Energy Introductory Tasks
Honors Physics

Learning Target: I will be able to define and apply the following energy concepts: work, power, gravitational potential energy, elastic potential energy, and kinetic energy

Topic	**Physics Textbook (HMH, purple)**	The Physics Classroom (https://www.physicsclassroom.com/class/energy)
Work (W)	Section 5.1	Lessons 1a and 1b
Gravitational potential energy (U_g)	Section 5.2	Lesson 1c
Elastic potential energy (U_s)	Section 5.2	Lesson 1c
Kinetic energy (K)	Section 5.2	Lesson 1d
Power (P)	Section 5.4	Lesson 1f

Part 1 (*for each topic*): As you explore each topic, construct a chart similar to the one below on your own paper.

Topic: Weight	**Variable (s)/symbol:** F_g	**Unit(s) of measurement:** newton (N), pound (lb)
Definition: The force of gravity pulling on the mass of an object.		**Equation(s):** $F_g = mg$
Sample Problem: Determine the weight, in newtons, of a 40 kg dog. **Diagram** (with known values):  		**Solution:** $F_g = mg$ $F_g = (40\ kg)(9.8\ \frac{m}{s^2})$ $F_g = 392\ \frac{kg\ m}{s^2}$ or 392 N

Part 2: Complete the following problems from the Work, Energy, Power worksheet: #1-3, 5, 6, 8, 11, 12, 13-15, 17-19