

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_



## Energy Downer

**STEM Sims**

### Lesson 3: Guess My Weight

An old midway game was for a “carnival barker” to guess the weight of a person. The barker would simply look at the person and then predict the person’s weight based on probability and the barker’s past experience. Whether the barker was correct or not didn’t really matter because the prize they gave for being incorrect had less value than the money they collected for guessing weights. Can you be more scientific and determine the mass of an individual elevator rider in this simulation?

### Doing the Science

1. Start the Energy Downer Simulation by clicking on the “Sim” tab.
2. Click on the “Traction” icon under Elevator Type.
3. Use the elevator controls and data displays to determine the mass *in kilograms* of an individual elevator rider. Please note that all of the riders have the same mass.
4. Use Table 1 to record any relevant data you collected to help determine the person’s mass. Make sure to label the data and include units of measure.

**Table 1.**


### Do You Understand?

1. Describe, in detail, how you determined the mass of an individual elevator rider.

---

---

---

2. Show all of your calculations for how you determined the mass of an individual elevator rider. Make sure to show and appropriately cancel out the units of measure.

Mass of an individual elevator rider (*in kilograms*) = \_\_\_\_\_