

Name:
Date:

Official Class:

Ms. Calabrese
Physics

Free Fall Motion CER

An elephant (1200 kg) and bowling ball (4 kg) are dropped from the top of a very, very tall building. Which of the two objects do you predict will have the greater acceleration? (*air resistance is negligible*)

The distance and velocity of both the elephant and bowling ball are recorded at specific moments in time as shown below.

Elephant:

Time	Distance	Velocity
0 s	0	0 m/s
1 s	4.9 m	9.8 m/s
3 s	44.1 m	29.4 m/s
5 s	122.5 m	49 m/s

Bowling Ball:

Time	Distance	Velocity
0 s	0	0 m/s
2 s	19.6 m	19.6 m/s
4 s	78.4 m	39.2 m/s
6 s	176.4 m	58.8 m/s

Part I: Use the graphic organizer below for your Claim, Evidence and Reasoning (CER).

<u>Claim:</u> (Write a sentence that states whether the elephant or bowling has the greater acceleration)		
<u>Evidence #1:</u>	<u>Evidence #2</u>	<u>Evidence #3</u>
<u>Reasoning:</u> (Write a statement that uses the evidence to support your claim)		

Part II: Switch with your partner. Read their CER and provide feedback below. Then switch back, read their comments and self-reflect below:

Peer Comments:	Glow:	Grow:
Self-Reflection:	Feedback I found useful and why:	Strategies to Improve:

Part III: After you have filled out the organizer, and incorporated any feedback, type up your CER below as a paragraph. You must use complete sentences. Be sure to provide an intro and concluding sentence.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.