

Abstract Submitted
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Scaffolding Laboratory Activities Utilizing Everyday Biological Materials, such as Eggs, Popcorn, and Common Liquids, to Demonstrate Classical Mechanics Concepts REBECCA SKELTON, CHELSEA DANDRIDGE, KENNETH PESTKA, II, Longwood University — Using easily accessible biological objects such as eggs, popcorn, and common liquids, we designed and implemented laboratory experiments focusing on classical mechanics concepts, which included the conservation of momentum, conservation of energy, kinematics, sound intensity level and power. We also produced handouts and activities that were designed to coincide with the lab experiments. The handouts included instructions, a list of materials, and conceptual questions to help students internalize the new information. Our experiments used a scaffolding technique, by taking related concepts that students learned in previous labs and activities, and integrating them in subsequent labs. Activities were designed to help students stay focused on the lesson, and absorb and retain relevant content. In addition, the labs and activities were designed to be accessible to individuals with varying mathematical backgrounds. Our goal was to use common household materials in order to ignite a love for physics, and encourage students to discover the relevance of physics in daily life.

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