

Strand: 8.2	Standard: 8.2.2	Episode 1	Big Idea: The distance in a system affects how much potential energy an object has.
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Title: Phenomenon:	Time: 20 minutes	CCCs: <u>Patterns</u> <u>Cause and effect</u> <u>Energy and matter</u>	Practices: Ask questions Plan and conduct an investigation
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Narrative of episode: Students will **ask questions** about the cause of the phenomenon of eggs cracking different amounts when dropped from different heights.

Gather:

Ask students if they have ever dropped an egg and had it not actually crack? Have them raise their hands, then ask the students if they have ever dropped an egg and had it actually crack? Have them raise their hands.

Reason:

Ask students to discuss in groups then share their ideas of what the difference was. Why did it sometimes crack and sometimes not? Pull out an egg and drop it an inch off of the table. Show the students the result. Then ask them what would cause it to crack more, then drop it by holding it up off the table higher look at the results. Then ask them what would cause it to crack even more, at this point either stand up on a table or climb up a ladder or drop it from a second story in the school onto something that will contain its mess let the students see the result.

Communicate:

Have the students then try to explain scientifically why there is a difference. Have them complete the introduction to the phenomenon template worksheet. This same worksheet can be used for other phenomenon and gives the students a chance to go back and reflect after doing other activities and labs. It can be put in their lab book or be collected and handed out again after doing other activities.

Assessment: The student's explanation of what is happening on their phenomenon sheet will help you see where the students understanding is.	Materials, resources, handouts, etc: <ul style="list-style-type: none"> • Eggs • Phenomenon sheet
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