**Is Sound a Mechanical Wave?**

Over the next few days, you will be conducting an investigation to answer this question. But before we can really answer this question we need to establish what criteria or characteristics make something a mechanical wave.

So what is a mechanical wave? List as many wave phenomena and characteristics as you can think of.

Sound must display all of the characteristics listed above to be considered a mechanical wave. So you must collect evidence of sound doing (or not doing) each of these things.

After you have collected your evidence, you will write a claim that is consistent with your observations. Then you will write a persuasive essay that follows the CER format (Claim-Evidence-Reasoning).

**Claim Evidence Reasoning (CER)**

CER is the general outline you should be following to write a persuasive or argumentative essay in science. Each element needs to be included in order to have a complete argument.

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| Element of Writing | Sample |
| **Claim**: What do you know?This is your thesis statement. This is what you are trying to prove in the rest of your argument. |  Do heavy objects fall faster than lighter objects? |
| **Evidence**:How do you know that your claim is true? This element should include your observations. What did you see or experience that supports your claim? |  |
| **Reasoning (Analysis):**Why does your evidence support your claim?Here you have to make the connection between your evidence and your claim.  |  |