**Create a Communication Device Worksheet**

Constraints:

* Must not go over $20 budget.
* Communication device must be at least 6 meters long.

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| **The Problem (Ask)** |
| What problem are we trying to solve? |

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| **Research Notes (Research)** |
| Write down what you learn about materials that make sound louder or softer. |

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| **Brainstorming Notes (Imagine)** |
| Write down ideas for your communication device. |

Budget:

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| Material | Cost |
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Final Cost: $\_\_\_\_\_\_\_\_\_\_\_

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| **Your Design (Plan)** |
| Draw a picture of your what your device will look like with arrows identifying each material you used. |

What materials did you use? Why did you choose those? (Create)

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After you test your design, what will you change? (Test) Are there different materials you are going to use? (Improve)

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What worked with this redesign? What would you change? (Improve)

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Which materials absorbed the loud sound the worst?

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