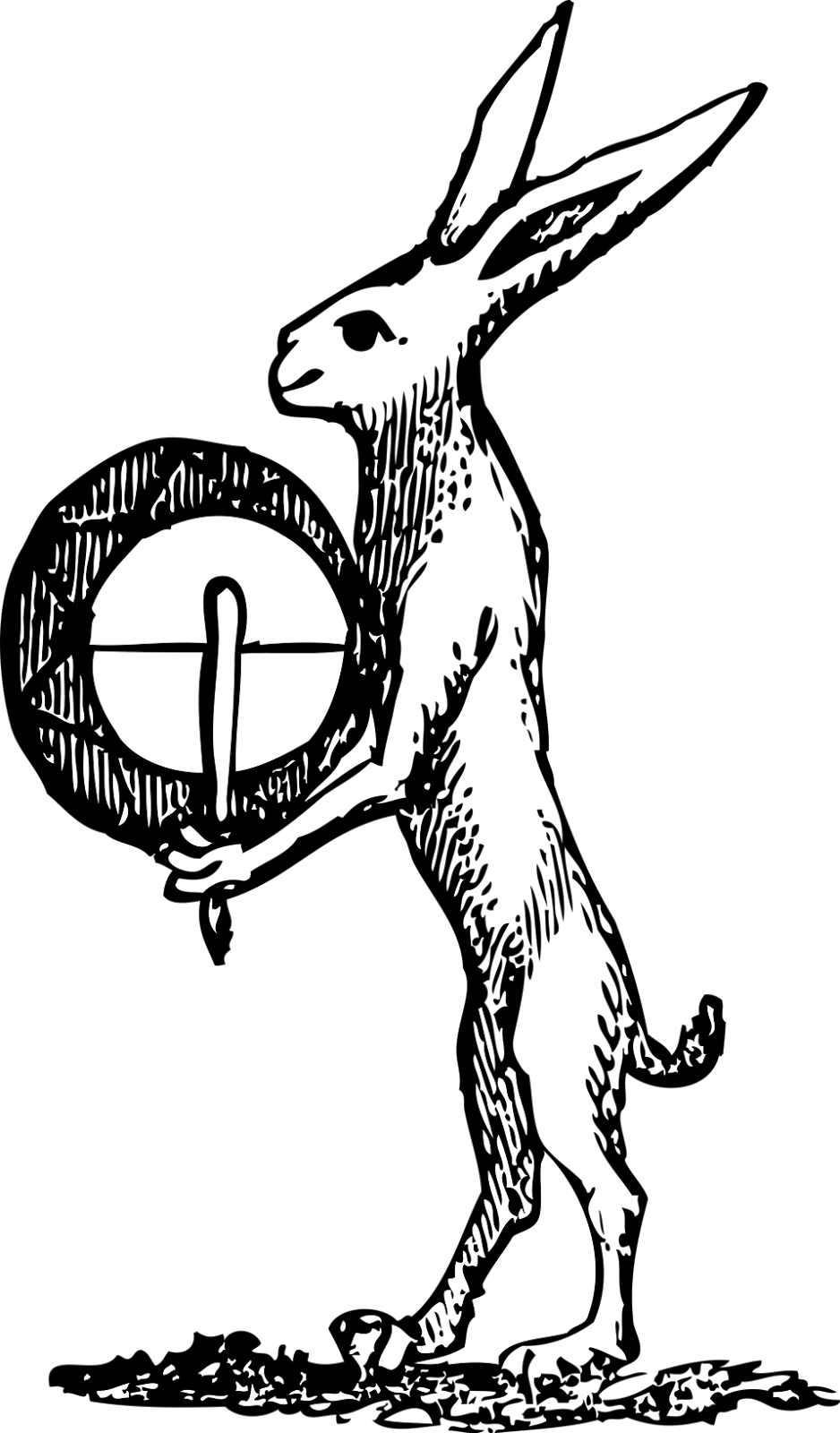
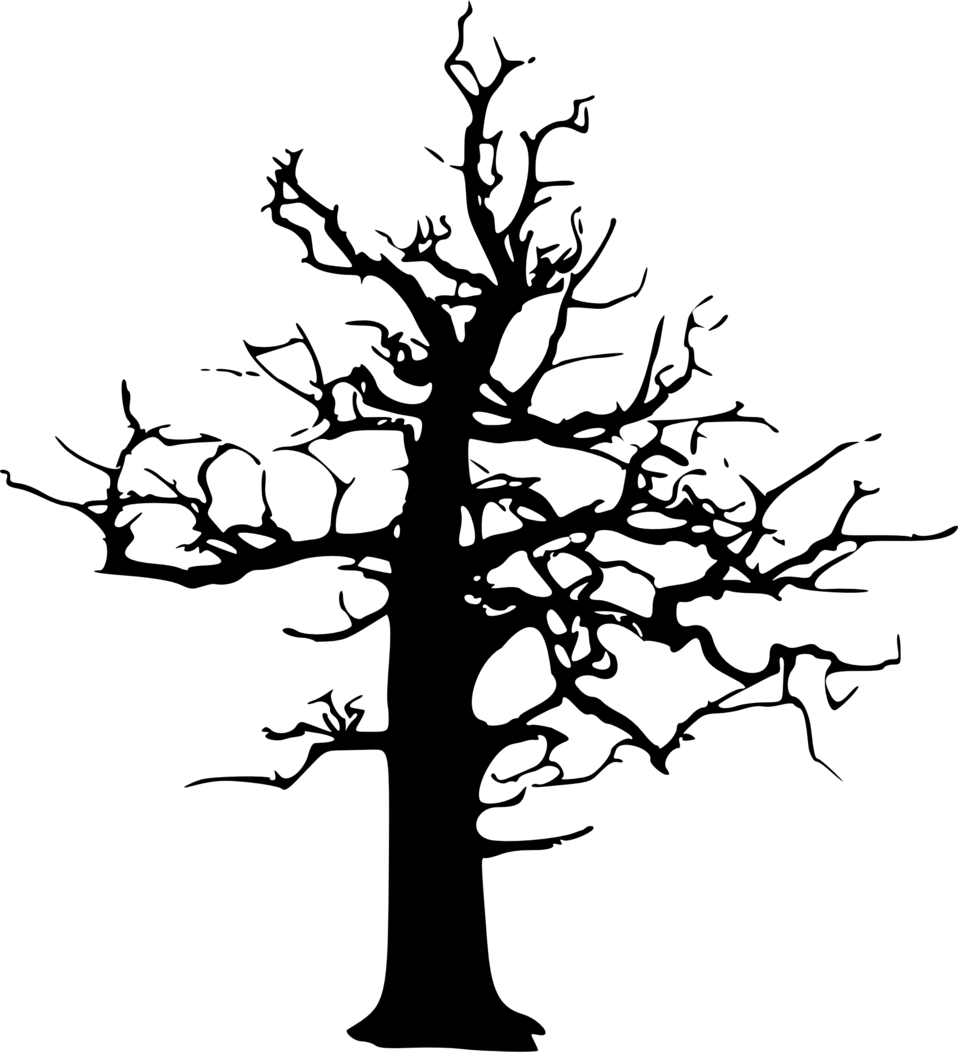
**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Engage #1: Scientific Practice Worksheet: Is the sound traveling?**

Circle YES if the statement is demonstrating sound traveling. Circle NO if the statement is not demonstrating sound traveling

1. Mouth speaking                                                  YES                                  NO

2.  Drum being hit                                        YES                                  NO

3. Standing tree                                        YES                                 NO

4. Phone and ear listening                 YES                                NO

5. Baby sleeping                             YES                             NO

6. In order to have sound, you need\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Whispering Through Tin Cans**

1) What do you think will happen to the sound of someone whispering through a tin can?

**Circle all the possible answers.**

I will hear a buzz.

I will hear a hum.

I will hear the whispered words.

I will not hear anything.

2) Does shortening the string affect the sound?

YES or NO

3) The larger the string, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sound. (higher, lower)

**Whispering Through Tin Cans**

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YES or NO

3) The larger the string, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sound. (higher, lower)

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**LAB #1: If we change the type of container what will happen to the amount of sound that we can hear?**

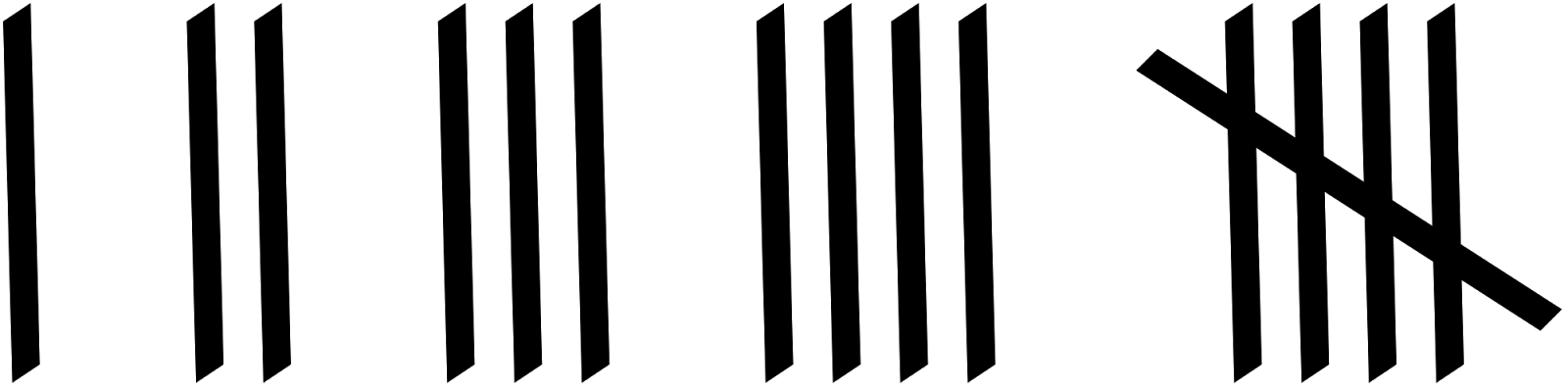
|  |  |  |
| --- | --- | --- |
| Variables | Trial A | Trial B |
| **Cup Material:**  **(changing variable)**  String Length:  (constant) | **Styrofoam cup**  3 meters | **Paper Cup**  3 meters |

Predict which cup will vibrate better and carry a louder whisper to your ear. Write your prediction below.

I predict that a whisper will cause a vibration and travel

https://docs.google.com/drawings/d/scSzVrt9_Xyz2uSvEtkLshw/image?w=285&h=36&rev=1&ac=1better through a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** cup.

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TALLY SHEET (3  trials for each type of cup) ﻿****

**Can hear**  **Cannot hear **

**Styrofoam cup telephone (Trial A)**

|  |  |
| --- | --- |
|  |  |

**Can hear**  **Cannot hear **

**Paper cup telephone (Trial B)**

|  |  |
| --- | --- |
|  |  |

**GRAPH YOUR TALLY MARKS -color the number for each**

|  |  |  |
| --- | --- | --- |
| 3 |  |  |
| 2 |  |  |
| 1 |  |  |
| Number of marks | Styrofoam  Cup | Paper Cup |

**Results**

**From the tally marks, I understood that the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cup**

**worked \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cup**

      (better than / the same as)

**for making a telephone.**

**\*\*CLASS GRAPH\*\***

**\_\_\_\_\_\_\_\_\_**students found that **styrofoam cup** caused the string to vibrate louder.

\_\_\_\_\_\_\_\_\_students found that the **paper cup** caused the string to vibrate louder.

\_\_\_\_\_\_\_\_\_students found that the **sound** was **equal** in both cups.

DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**LAB #2: Does the size of the cup make a difference? How could we test that?**

**If we change the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ what will happen to how much we can hear?**

|  |  |  |
| --- | --- | --- |
| Variables | Trial A | Trial B |
| Cup Material: (constant) | Paper | Paper |
| **Cup Size:**  **(changing)** | **Large** | **Small** |
| Yarn Length:  (constant) | 3 meters | 3 meters |

I predict that a whisper will cause a vibration and travel

https://docs.google.com/drawings/d/sfmfacvJX5ccpYa_3YifMzA/image?w=249&h=36&rev=1&ac=1better through a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** cup.

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TALLY SHEET (3  trials for each type of cup)

**Can hear**  **Cannot hear **

**Large cup telephone (Trial A)**

|  |  |
| --- | --- |
|  |  |

**Can hear**  **Cannot hear **

**Small cup telephone (Trial B)**

|  |  |
| --- | --- |
|  |  |

**GRAPH YOUR TALLY MARKS -color the number for each**

|  |  |  |
| --- | --- | --- |
| 3 |  |  |
| 2 |  |  |
| 1 |  |  |
| Number of marks | Large  Cup | Small Cup |

**Results**

**From the tally marks, I understood that the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cup**

**worked \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cup**

      (better than / the same as)

**for making a telephone.**

**\*\*CLASS GRAPH\*\***

**\_\_\_\_\_\_\_\_\_**students found that **large cup** caused the string to vibrate louder.

\_\_\_\_\_\_\_\_\_students found that the **small cup** caused the string to vibrate louder.

\_\_\_\_\_\_\_\_\_students found that the **sound** was **equal** in both cups.