

Toot the Flute
Physical Science

Name _____
1 2 3 4 5 6 7 8

In this lab you will be creating a pan flute to create music with.
Be careful with your steps, a carefully made instrument will sound best.

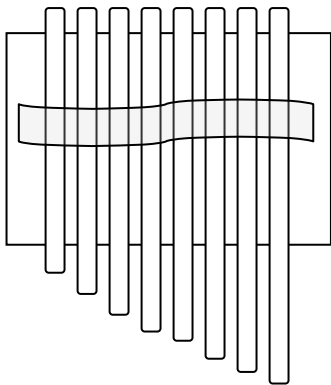
Part I - Planning

You need to calculate the lengths of straw to use. To do this, you must decide the length of the largest straw, and put this in the "Length of Straw" column. Then multiply this length by the "Multiplier Value" to find the final straw length. Do this in the table below. DO NOT CUT THE STRAWS YET.

Straw Number	Original Straw Length	Multiplier Value	Straw Length
1		1.00	
2		.888	
3		.800	
4		.750	
5		.667	
6		.600	
7		.530	
8		.500	

Part II - Creation

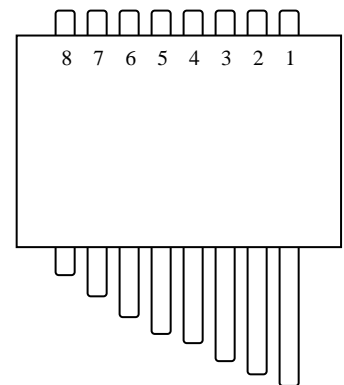
Carefully cut your straws to the lengths indicated in the table above. You do not need a fresh straw for each flute, you may re-use cut sections. When you are finished, arrange them by size, and tape them to a note card as shown below.



After you have taped them, label each flute with the correct number.

You now have your own Pan Flute!

To play:
Blow over the top of the desired flute to make noise



Part III - Questions

1. What caused the sound that you were hearing?
2. Why did each straw sound differently?
3. Play and label the following songs:

Song 1
1556655 4433221 5544332

Song 2
112712 334321 2171 555543

Song 3
44432 556517 556521 5553176 443121