Changing Sounds

Procedure

1. **Record Data** Obtain two rubber bands of different widths. Use the chart below to record data.

<table>
<thead>
<tr>
<th>Rubber Band</th>
<th>Prediction</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **Predict** Predict how you think each rubber band will sound when it is stretched around an empty coffee can and plucked. Record your predictions in the second column of your chart.

3. **Experiment** Place the narrow rubber band around the coffee can. Pluck the rubber band where it stretches across the opening of the can. Observe and record how the rubber band moves and sounds. Safety: Wear goggles.

4. **Use Variables** Repeat step 3, but this time use the wide rubber band.

5. **Record Data** In the third column of your chart, add your observations about which rubber band produced the lower sound.
Conclusion

1. **Hypothesize** Write a hypothesis to explain your observations about the width of a rubber band and how high or low the sound it produces is.

   
   
   

2. **Predict** Predict how high or low the sound would be if you used a rubber band that is much wider than the ones you used.

   
   
   
   

Experiment

Design an experiment that shows how to use containers and rubber bands to make a musical instrument. Show how you can change the sounds your instrument makes.