

Straw Pipes of Pan Flute

Every sound is made when something vibrates. Sometimes it's the skin stretched across a drum, sometimes it's a plucked string. By fine-tuning the amount of what is vibrated, you can make notes.

At this station you'll make a full octave of eight notes.

Procedure

1. Mark one straw from its two ends: at lengths 9.5 cm and 10 cm. Cut these two pieces from the one straw.



2. Mark and trim the remaining six straws to make six pipes of increasing lengths: 11.3, 12.7, 14.1, 15.0, 16.9, and 19.0 cm long. Make a pile of the shorter bits you've trimmed off these longer pipes. Cut the longest trimmed bit in half, and then set the whole pile aside.

3. Lay a piece of tape on your work surface, sticky side up. Arrange the 8 pipes from longest to shortest, leaving the width of one straw between each straw and aligning one end of the straws. Add the shorter trimmed bits as spacers between the longer pipes.



4. Lay another piece of masking tape across the pipes to hold them together.



5. Label the pipes 1 (longest) through 8 (shortest).
6. Holding the pipes straight up and down (vertically) with the straight part just below your mouth, blow across their top openings of the straws.
7. Play "Twinkle, Twinkle Little Star" using the notes in the box below.
8. Find other one-octave songs to play on your Straw Pipes of Pan Flute, or compose your own tune!

Turn and Talk

Think about it. How does this pan flute work? Discuss these questions with a partner.

What happens when you blow across the top of the pipe?

What is vibrating to make the sound waves?

Does a long pipe make a high note or a low one? How about a short pipe?

Twinkle, Twinkle, Little Star

11 55 66 5

44 33 22 1

55 44 33 2

55 44 33 1

11 55 66 5

44 33 22 1