

Performance Task

14.4 Sound Interference and Resonance 33.

Design and make an open air resonator capable of playing at least three different pitches (frequencies) of sound using a selection of bamboo of varying widths and lengths, which can be obtained at a local hardware store. Choose a piece of bamboo for creating a musical pipe. Calculate the length required for a certain frequency to resonate and then mark the locations where holes should be placed in the pipe to achieve their desired pitches. Use a simple hand drill or ask your wood shop department for help drilling holes. Use tuning forks to test and calibrate your instrument. Demonstrate your pipe for the class.