

# Panpipes Science Experiment

**Grade level:** All grades

**Learning objective:** To investigate how the frequency of a sound can be varied.

**Science unit:** Energy and forces - sound

## Skills Development

Observing

Experimenting

## Materials Needed

- Sheets of A4 paper
- Plastic bottle lids
- Sticky tape
- Scissors
- Ruler

## Steps

1. Cut strips of paper 9cm wide.
2. Roll the paper into cylinder pipes. Attach a plastic bottle lid to the end of each cylinder.
3. Cut each pipe slightly smaller than the last.
4. Stick them altogether.

## What's Happening?

Each panpipe will play a different note.

## Scientific Principles

The frequency depends on the length of the panpipes. The shorter the pipe, the higher the frequency will be. When you blow into the pipes, it takes a shorter length of time to reach the bottom. This pipe will have a higher frequency.

