

Repurposing Water Cooler Bottles

A special thanks must go to Keith at Christ Church Grammar who sent through these wonderful suggestions.

Funnel

The top 1/4 or so could make a nice large funnel, if you had such a need.

Black Hole

The same thing could be used as an analogue of the gravity well of a black hole. Roll some marbles or ball bearings around it until they disappear beyond the event horizon.

Helmholtz Resonator

How about resonance demonstrations in physics?

I haven't tried one to see how well they resonate but it would be worth giving it a go.

You may need an air source that is a bit more than a breath, one such as used with an air track etc.



Test Load

We once used a bin, into which we flowed water, as the test load for some spaghetti bridges.

One of these bottles might be used, with water or sand being added, as a test load for structural testing (bridges, wings, towers, etc.).

Static Electricity Dance or Relay

They may have antistatic properties but if not, some polystyrene beads (spheres? balls? .. as used in bean bags) could be placed inside and the whole thing given a good shake, then some charged rods brought to the side of the bottle might get a response from the beads. This works quite well with a cheap plastic bucket. A static electricity relay, transferring beads from one bucket, or tray, to another could be quite fun.

Airzooka

Perhaps cutting the bottom off one and stretching some type of rubber, or such, across the large opening to create an air vortex generator, a sort of narrow throated airzooka. We build some small stomp rockets out of manilla folders. Large soft drink bottles are used as the stompy air source and a length of cheap pool cleaner hose pipes the air to the rocket. A few pieces of pvc and fittings complete the setup. Modified like an airzooka, one of these bottles might make a suitable, and reusable, air source. We only get limited launches out of each soft drink bottle. I also have a setup for very tiny squeeze rockets that use tomato source bottles as the air source.



Sound - Intercom and Clucky Ducks

I wonder if two would work like the old, tin can intercom. How to connect the string might be the tricky bit as you don't want it to absorb the vibrations but pass them on. Maybe leaving the base intact and connecting the string to it might work. Would they work as a big "clucky duck", I've tried that with soft drink bottles but they worked nowhere as good as the foam cups do.

Biology Uses

Cleanly cut and slightly modified such that the top part can sit securely on the bottom part, there are many potential possibilities.

For reference, I'm thinking about some of the products from PASCO.

Metabolism Chamber (might be too large though) - EcoChamber (cut extra holes for more sensors if required) - EcoZone System - Weather in a Terrarium (see attached) - the tint of the plastic might be a problem for some of these.



Mini Greenhouse

Self-watering pots is another application that some people use them for.



General Storage

Sand, pebbles, plant growth mix, mulch, etc.