

Concept by Emily Bowling, Conservation Education Liaison, Saint Louis Zoo Additional designs made or inspired by

Mandy Siegel Fahy, African Watering Hole/Polar Bear Watch Keeper, The Maryland Zoo in Baltimore





General Description

This enrichment is fast and easy in its most simple form of one length of hose and one cube at the end. However, there are dozens of modifications and variations can add variety and complexity to the basic elements. It can be used alone or food, sound, and/or scent can be added for additional enrichment options.

Safety Concerns

- As always, check with the veterinarians, curators, and superiors to be sure that the enrichment is approved and
 appropriate for the species of animal and individual animals that will have access to it.
- Check that fire hose lengths and location are secured to help ensure that the device does not present an
 entanglement risk.

Materials

Fire hose
Tool to cut fire hose
Tool to put holes in fire hose
Measuring device
Connectors (zip ties, thread, hardware, etc.)
Marker
Pebbles or other noise makers (optional)
Plyers (optional)





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STEP 1. Determine the length of fire hose strips you will need. To do this, measure the width of the fire hose you will use. Use the formula W4 + 4 + 2, which the width of the fire hose times 4 (representing the 4 sides of the cube each strip will make), plus 4" (1" of extra fire hose for each of the 4 corners; the corners cannot be folded on a sharp angle so they add to the amount of fire hose needed. 1" is an estimate. If the fire hose is very thin and bendable, it may take less. If the fire hose is very thick or hard to bend, it may take more.) + 2" (1" at each end of the strip to allow overlap to connect the ends to each other to form a loop. If using thin hose and sewing or cable ties instead of hardware to connect the hose, it will require less than 1" at each end.).

These instructions use 1" wide fire hose that is thin and bendable, so each of the 4 corners only adds about 0.25 inch. Zip ties were used to connect the fire hose, requiring only 0.5 of overlap on each end. The formula is $1" \times 4 + 1" + 1" = 6"$. The fire hose length for the cubes using 1" hose shown in these instructions is 6".

If you are making more than one tether ball, it's efficient to make a template so that you only have to measure the hose once. Mark 0.5" in from each end and create a hole on the mark. The rest of the strips can be measured and marked from this template. Measure, cut, and make holes in 2 strips of fire hose for each tether ball you want to make. (You will use a longer strip to complete the end cube/ball.)







STEP 2. Make loops from each of the two fire hose strips by connecting the holes as shown below. These instructions show zip ties, but hardware, thread, or other approved methods may be used.









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STEP 3. Tuck one loop inside the other, hiding the connector of the inner loops as shown in the first photos below. Place the connector for the outside loop over one of the "open" sides as shown in the second photo below. This will make hiding the connector for the outside look easier in the next step. If you are adding pebbles or other approved material to make sounds, put it in the cube now. Note the small pebbles in the cube in the second photo below.





STEP 4. Cut a third strip of fire hose to be as long as you want the "tether" to be, adding 4 x the width of the fire hose you are using to allow for the "ball" at the end to be complete. Use the template to mark where the holes should be on this long strip to connect it. Pull the long strip through and connect it around the two tucked loops as shown below.













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Step 5. Turn the long strip so that the connector is hidden and the tether ball is complete.





Variations

There are many ways to make a "mobile" to make multiple tether balls on one device. A few are shown below.

- Begin the square knot browser (instruction on <u>www.Hose2Habitat.org</u>), adding the cube end to each of the 4 strips.
- Start the square knot browser using 4 strips of fire hose instead of 2 strips, creating 8 strips to which cubes may be added.
- Pull additional fire hose strips through the back of the square knot browser for additional cubes. If these extra strips are not attached in some way, they can be pulled back and forth to vary the length. (The cubes at the end will prevent these strips from pulling out.
- Add cubes along the length of the strip (in addition to the end cube).











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Some examples in addtion to those shown above:

- Pool noodles or other materials can be put into the cubes to make a floating device for aguatics.
- With larger fire hose, holes can be made in one or more sides so that treats can be put into the cubes. The treats will then fall out as the animl moves them around.
- And so on.....

The device can be enjoyed in its simplest form. For variety, fish, browser, treats, scent, etc. can be added as appropriate for the animals to whom it will be given.





