Appendix II: Fountain of Wealth Instructions

Building Your Own Fountain of Wealth

For those who ever wanted to own their own fountain of wealth today is a happy day. The following materials can be purchased at a local hardware store, Home Depot (for the tile board), and a dollar store (water bottles). The tile board and Velcro can only be purchased in larger quantities, a sheet or package of which would be sufficient for 2 Fountains of Wealth. The tile board is basically whiteboard material. It was chosen so we could illustrate important concepts and have an inexpensive, portable teaching tool. It is not, however a perfect substitute for white board, and we have found that it is important to clean any writing off the tile board not long after using it or the writing will be difficult to get off.

Total Time: 3.5 hours working time, and one overnight to dry before using sealant.

Difficulty: Moderate. **Two parts of this activity are not appropriate for children to do alone** because a sharp knife and open flame are used. They are indicated with a balloon.

Materials:	Cost	Quantity	Total
* **Tile board (8ft x 4ft)	$10.97	1	$10.97
**Industrial Strength Velcro	$26.67	1	$26.67
Vinyl tubing (3 ft) ¼ to ½ in diameter	$1.89	1	$1.89
Two way valve, with on and off positions sized to fit vinyl tubing	$6.56	1	$6.56
Water bottles (approx 12 -16 oz)	$1.00	4	$2.00
Silicone Sealant	$3.44	1	$3.44
2 ft pieces of wood, ½ by ¾ in		2	
Dry Erase Markers	$3.00	1 box	$3.00
Small, pointed metal object with the same diameter or smaller as tubing, such as a drill bit	Found in house		
Pliers (to grip drill bit)	Found in house		

Pot holder/oven mitt	Found in house		
Small flame	Gas stove/lighter		
Measuring tape	Found in house		
Sharp knife (recommended)/scissors	Found in house		
Duct tape	Found in house	(2 ft)	
Scrap cotton fabric (optional)	$5.00	½ yard	$5.00
Sand Paper	.50		.50

Total Cost= $65.98

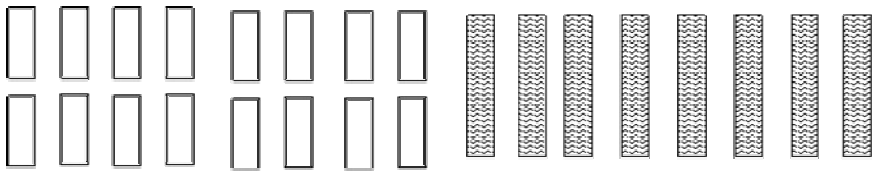
Variation: If portability is not of great importance to you, you will do just as well to use a whiteboard approximately 4ft wide by 2 ft high instead. In which case, after this purchase you can skip to Step 15 and only buy the materials in table which highlighted with grey. Longer strips of sturdy Velcro (2 ft) can probably also substitute for the industrial variety.

*Ask the staff wherever you buy the tile board to cut this sheet into 8 parts, 2ft x 2ft each.

**These materials can only be purchased in quantities sufficient to make 2 Fountains

Instructions

1. Cut joined Velcro (both soft and course) into 8 pieces, 9 in long. When un-joined you have 8 of the soft and 8 of the coarse. Then, cut only the soft Velcro pieces in half, leaving 16 soft pieces 4 ½ in length.



2. Place the tile boards in a square pattern, as seen above. Some of the edges may not line up perfectly, but the bottom should have a straight edge to create a sturdier base. Move these boards about ¼ inch apart from one another to make them a little easier to work with.

3. Sand the areas of the board where you are going to attach Velcro,

4. Unpeel the plastic from the soft Velcro pieces and place them on the back of the board. Each piece should be placed approximately 4 in from the inside or the outside edge of the tile board. (Refer to Fig. 1) Each soft piece should line up directly with another soft Velcro piece on the tile board below, or next to it. All of the sticky flat surfaces should be in direct contact with the back of the board (the Figures below may depict some overlap, but this is not correct). When you have placed all 16 soft pieces of Velcro, use your hands to press this Velcro tightly to the surface. We also applied small pieces of duct tape to reinforce the bottom 4 pieces of Velcro.

5. Then, press the coarse Velcro strips on top of the soft ones. (As in Fig. 2)

Fig. 1

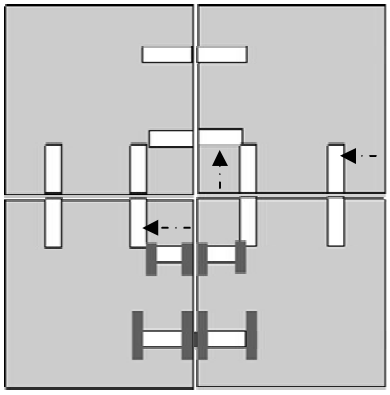
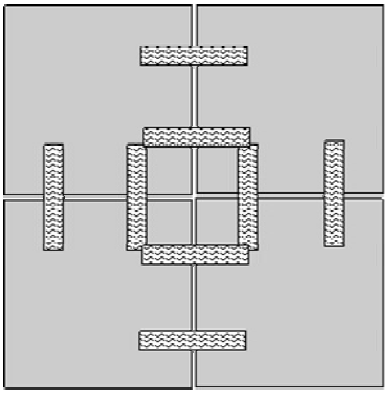


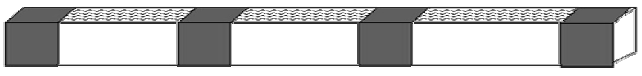
Fig. 2



6. Next, cut 1 piece of 2 ft Velcro with both the soft and coarse sides joined together. Then cut those two pieces lengthwise down the middle, producing 4 pieces (joined soft and coarse Velcro) that are 2 ft by 1 in. Then cut the soft side of the Velcro into 1 ft sections, which will produce 4 soft pieces 12 in long. The coarse side of the Velcro can then be trimmed down a few inches (about 3) so that that it is about 1 ft 9 in long.

7. Then, take the coarse Velcro piece and run it along the flat edge of one of the wooden sticks. Press the Velcro firmly to the wooden stick.

8. Wrap 4 small pieces of duct tape completely around the Velcro to help secure it.



9. Repeat steps 7 and 8 with the other piece of wood.

10. Place the thin soft Velcro pieces about 12in from the outside and inside edges of the tile boards, and running vertically from the horizontal center dividing lines. Place all four pieces, each pair (right side and left side pairs) lining up opposite one another. Smooth and press these pieces firmly to the tile board. (See Fig. 3) We found it helpful to reinforce these pieces with several small strips of duct tape over top.

11. Put the wooden sticks, Velcro side down on top of the soft Velcro in a vertical line. (See Fig. 4)

Fig. 3

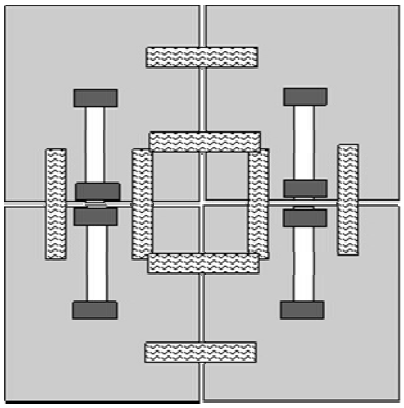
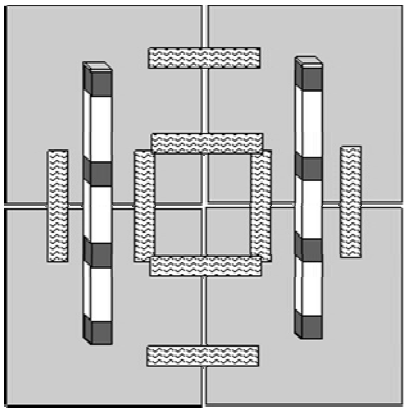
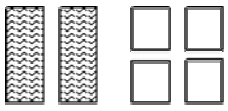


Fig. 4



12. Cut 2 pieces of Velcro 4in long. Then cut the soft sides in half to create 4 squares.



13. Place the four smaller squares at in the center of the four boards. (See Fig. 5)

14. Use the two longer pieces on diagonals to help secure the center of the board.

    (See Fig. 6)

Fig. 5

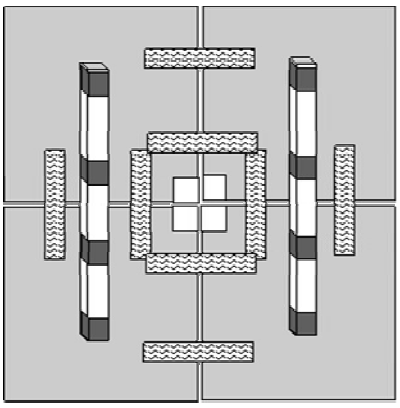
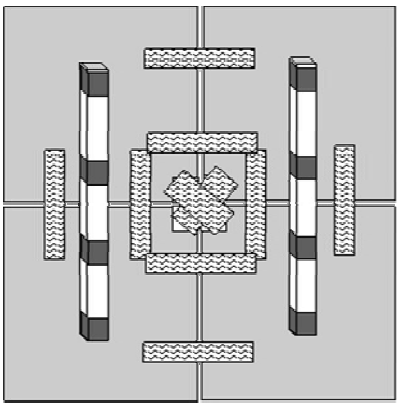


Fig. 6

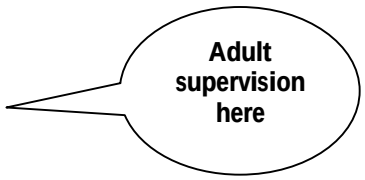


15. Fabric can substituted for the plastic backing of the coarse Velcro at any time.

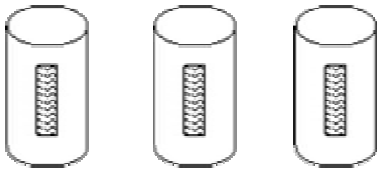
16. The tile board should be able to stand erect when leaned against a wall or table. Either stand it up with the white, front side out or turn it over so you can work on it.

17. Cut 2 more pieces of joined Velcro, each piece being 3 ½ in long. Then cut the Velcro lengthwise so you have 8 pieces total, 4 soft and 4 coarse. Only six pieces are necessary, one soft and one coarse piece will not be used.

18. Cut the tops off the water bottles with a sharp knife.



19. Attach the coarse Velcro vertically and approximately in the center of the water bottle. Repeat for the other two bottles.



20. Measure and mark, with a dry erase marker, places for the Velcro on the front of the board. Also, see Fig. 7 below.

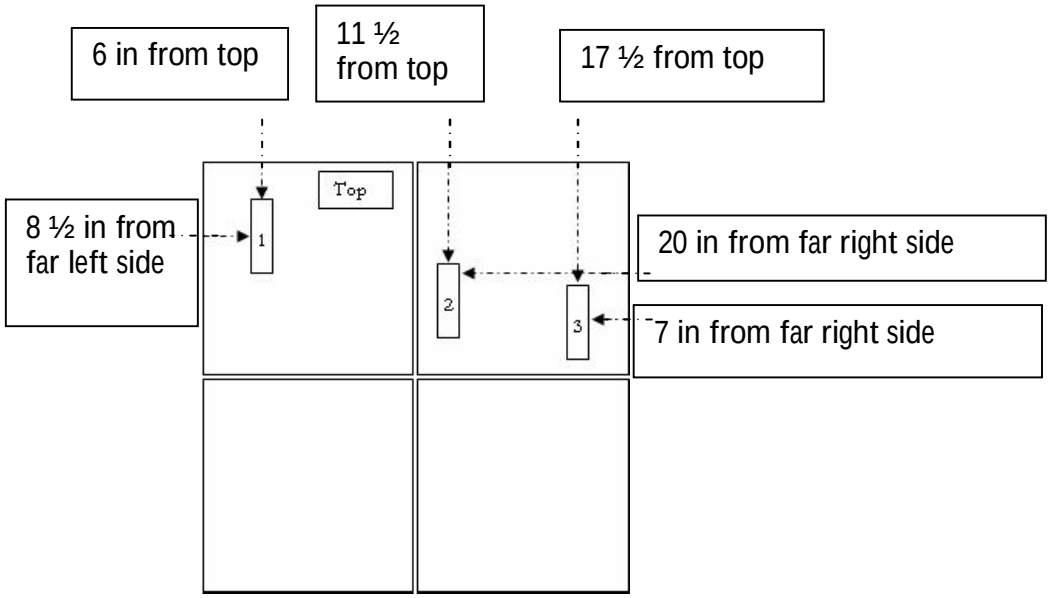
Velcro Placement Guide

Water bottle 1 is placed 6 in from the top and 8 ½ in from the far left side of the tile board.

Water bottle 2 is placed 11 ½ in from the top and 20 in from the right side of the tile board.

Water bottle 3 is placed 17 ½ in from the top and 7 in from the right side of the tile board.

Fig. 7

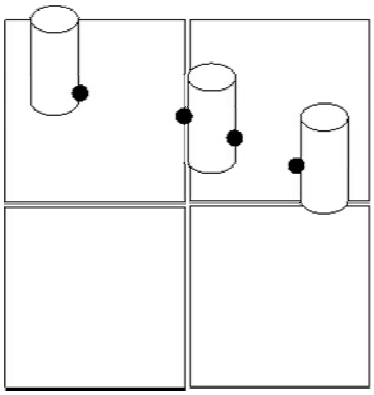


21. Place the Velcro on the board

22. Attach the water bottles squarely on the pieces of Velcro.

23. Using a dry erase marker, mark the places where the tubing will enter and exit the water bottles while they are still attached to the tile board. One important note: ***make sure the holes for the water bottles are progressively lower to encourage the flow of liquid.*** See Fig. 8 below and use the following measurements as an approximation:

Fig. 8



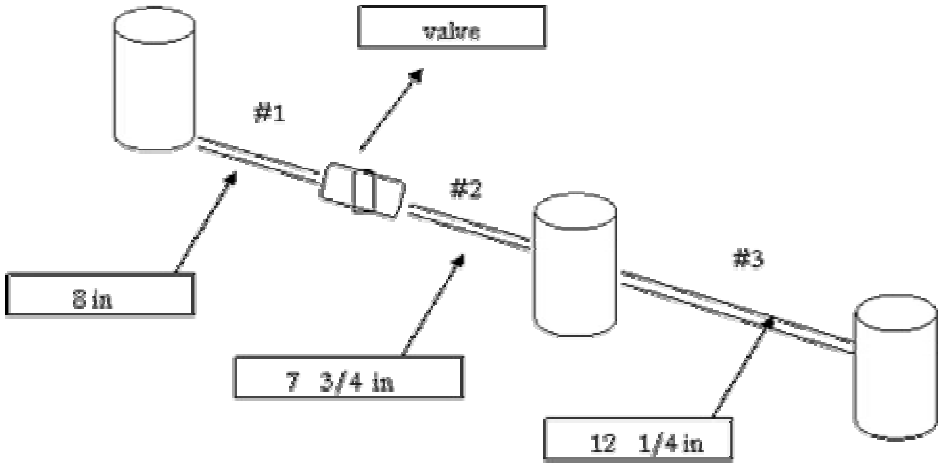
Bottles sizes in this figure are not in correct proportion to the tile board; they are larger to illustrate where to put the holes.

Hole Placement Guide

Hole #	Water bottle #	side	# of in from bottom
1	1	right	0 in from bottom
2	2	left	3 ½
3	2	right	3
4	3	left	4

24. Next, measure out the amount of tubing necessary to go between the two bottles for your "Fountain", in case the distances are different. Be sure to include in your measurements a small amount of tubing that will reach inside the water bottles. As a reference, below are our measurements for the amount of tubing needed between the bottles. Use this as a guide.

    Fig. 9



25. Once you have measured and checked to make sure your figures work, go ahead and cut the tubing. Do remember, that erring on the larger side is better because you can always make it shorter. It may be easier to write numbers on the tubing, labeling the pieces #1, #2 and #3.

26. Attach Tubing piece # 1 to the valve, and tubing piece # 2 to the other side.

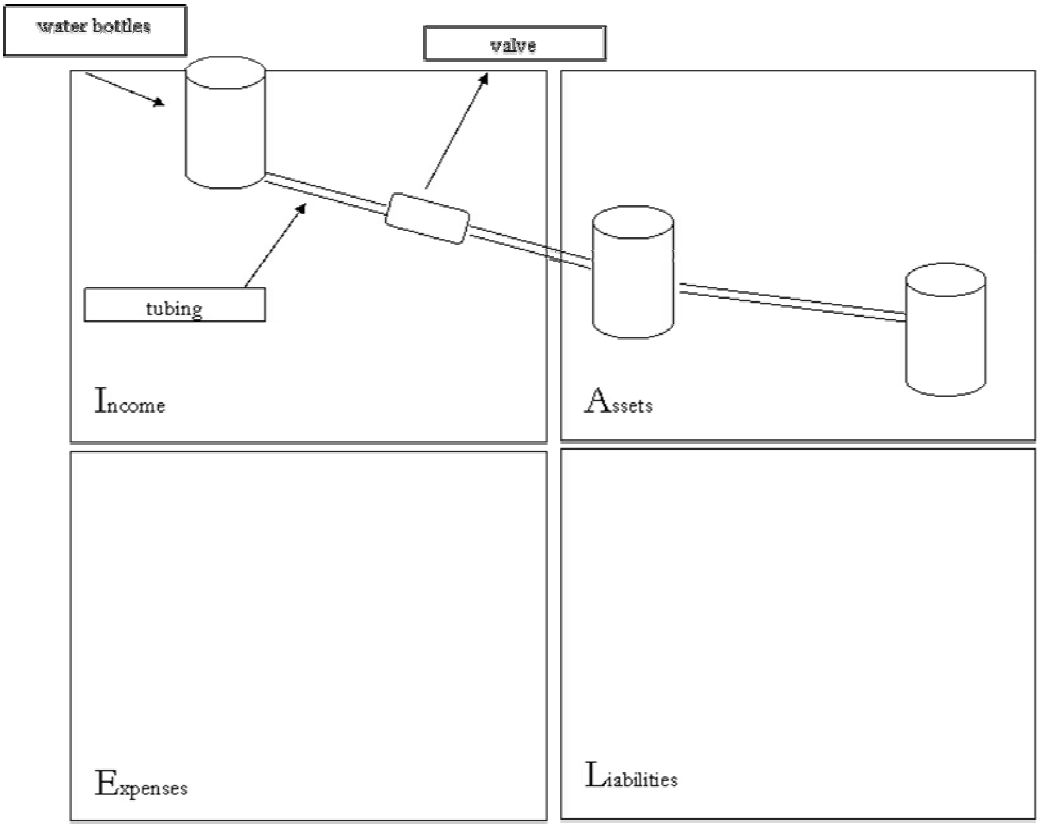
Adult supervision here

27. For the next step we need the pliers, the pot holder to hold the pliers, the small sharp object, and the open flame, such as a gas stove or a lighter. Have water bottle #1 and the first piece of tubing with the valve nearby. It's probably also a good idea to open some windows, turn a fan on, or go outside to do this because the smell of burning plastic isn't something you want to linger. Holding the pliers with the potholder, the responsible party will grip the small item, such as a drill bit in the flame for approximately one minute while it heats up. When hot, place in the side of water bottle #1 at the marked spot to melt the plastic. Remove when the hole is approximately the size of the tubing if not a little bit smaller. After taking it out,

quickly insert about 1 cm of tubing into the hole. Repeat for water bottle #3, and attach the 12 in piece of tubing. Finally make holes in water bottle #2, and be sure to insert the tubing attached to the valve into the higher of the 2 holes.

28. Now that all the holes are made, tubing inserted, Velcro placed, little remains. Wait until the water bottles cool and test out your Fountain of Wealth. Attach the water bottles to the board, and what you have should look like what you see in Figure 10 (minus the writing. This just demonstrates how we include this in a discussion of the IEAL chart). Try adding water. Can you turn the valve on and off? Does the water flow down into the 3rd cup? If so, that's great. If not, try tweaking some pieces to get it to work.

Fig. 10

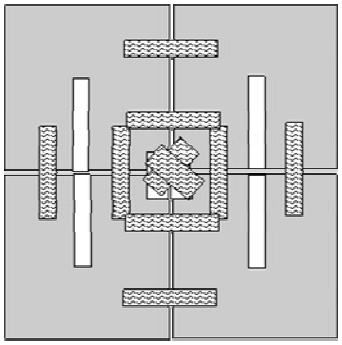


29. Lastly, empty the water out of your fountain and let it dry overnight. Then you can use the silicon to seal the tubes into the holes of the water bottles. ***Don't seal the tubes into the valve,*** those should be left alone so they can be detached. This is useful because we incorporate an "other people's money" bucket when teaching. It is used to show how when people spend their money on things that aren't assets or liabilities that in time will become assets, this just becomes other people's money.

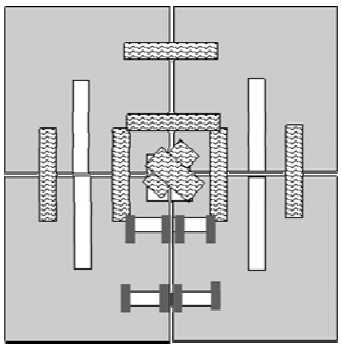
30. You're done! Enjoy, learn and share the Fountain of Wealth with your friends.

To Fold Up the Fountain of Wealth

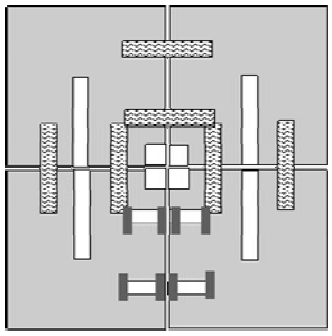
1. First, remove the wooden stick pieces that are supporting the height of the board.



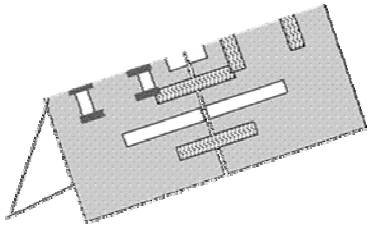
2. Next, detach the bottom two coarse Velcro pieces so that they can swing freely from the top.



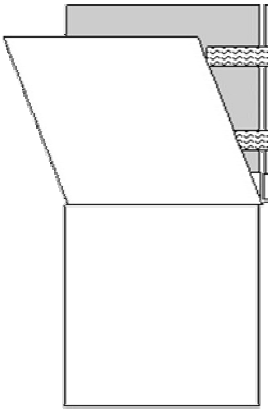
3. Detach the diagonal Velcro piece securing the center of the board.



4. Attach the 3 Velcro pieces you just took off to some exposed soft Velcro for safe keeping.
5. Fold the board vertically so that the back of the tile board is facing outward.



6. Next, fold the bottom panel up.



7. Turn it over, and fold the other bottom panel up so the white front side is facing out.

8. The fountain should now be in 2 ft by 2 ft square, a more compact form better suited to storage or carrying.

A couple of suggestions for securing it are:

- Use several large metal clips (like the kind used to hold papers together) to clamp the outsides of the board
- Use piece of coarse Velcro 3ft - 4 ft long to connect the 2 soft strips of Velcro on either side of the board when it's folded
- Use long pieces of Velcro that wrap all the way around it
- Make a tote bag that will carry the fountain, its wooden sticks, and any laminated labels you wanted to put on it.

Three of the authors pictured in front of the Fountain of Wealth.

About the Authors

Thom Dellwo (center) is the Financial Education Coordinator for Syracuse Cooperative Federal Credit Union in Syracuse, NY. He spent the last two years teaching and developing the material in this book. He holds a Bachelors of Science in Secondary Education from SUNY Oswego.

Kira Crawford (right) was recently hired by Syracuse Cooperative Federal Credit Union as a financial educator but she has volunteered her time to teach financial education since September 2006. She holds a Bachelor of Arts in Elementary Education from the College of William and Mary and she holds a graduate certificate in Environmental Education from the University of Idaho.

Jason Eaton (left) is a financial advisor and focuses on socially responsible investing. His undergraduate studies were in natural resource ecology and he holds a graduate certificate in Environmental Education from the University of Idaho.

Tina Sherman (not pictured) worked for a year as an AmeriCorps Volunteer In Service To America (VISTA) at Syracuse Cooperative Federal Credit Union. She holds a Bachelors of Science in Secondary Education from SUNY Oswego.