Rain Barrel for Under $40



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Material List

1- 55 gallon food grade plastic barrel
1- ¾” x ½” nylon adapter, ¾” male hose threads and ½” pipe threads
1- ¾” x ¾” PVC connector, male hose threads and pipe threads
1- ¾” close nipple
1- ½” x 4” PVC pipe nipple, FPT
1- ½” PVC full port ball valve, FPT
1- ¾” 90 degree PVC elbow, slip x FPT
1- ¾” x ½ “ PVC reducer bushing, spigot x FPT
1- 6” diameter mesh strainer
2- concrete cinder blocks

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Tools

Sharpie pen
box cutter
electric drill
1” flat drill bit
jig saw with wood tooth blade
adjustable wrench



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Remove Bung Cap

To remove bung cap, tap counter clockwise as shown in 1st photo and set aside.
Mark an “X” on the side of the barrel in line from where you removed the bung cap.







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Flush out Barrel

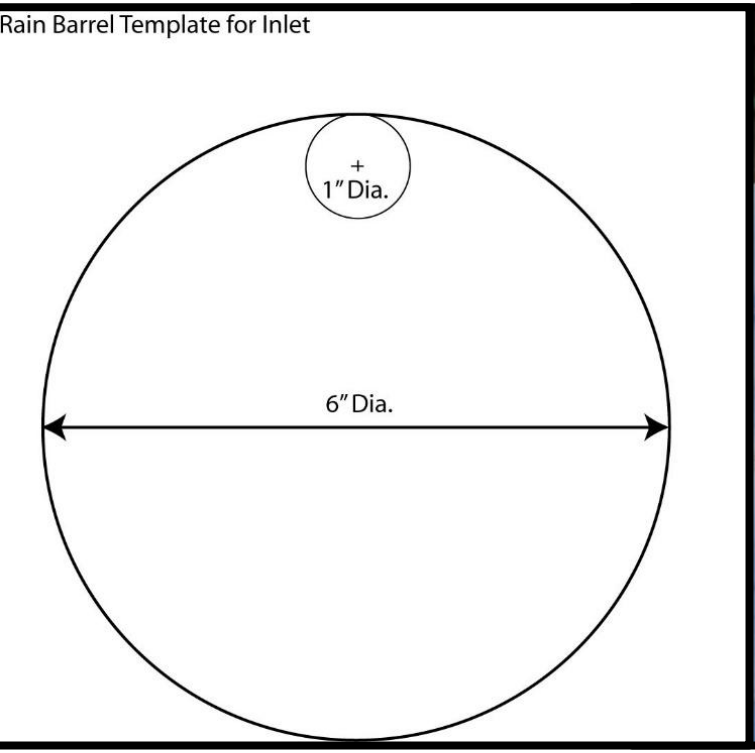
Rinse inside of barrel and then drain. We used food grade barrels that once held rice syrup.



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Barrel Inlet Hole – step 1

Turn barrel upside down. Scribe a 6” circle in the bottom (now the top), of the barrel. The inlet hole need not be dead center on barrel top. The placement of the inlet hole will depend on the angle of the downspout, house clearance and where downspout feeds into the barrel. Before you cut the inlet hole, visualize where the barrel will be located relative to the downspout and house.







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Barrel Inlet Hole – step 2

Drill a 1” hole in the 6” template as illustrated in middle slide. Place your feet on either side of the bottom rim of the barrel to steady it while drilling.







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Barrel Inlet Hole – step 3

Use jigsaw to cut-out 6” diameter circle. Cut to the right and then the left of 1” hole. Stop just before completing the cut-out. With your free hand, hold the cut-out and then complete the cut. Do not let the cut out fall into the barrel. Take your time with this step.





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Debris Filter

Check the fit of the 6” food sieve in the hole. This sieve will filter the rainwater and keep mosquitoes out. (We purchased the sieve at a Dollar Store).



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Overflow Fitting – step 1

locate the “X” mark on the barrel side to orient barrel. The “X” marks the spigot position. Decide where you want to place the overflow fitting relative to the spigot and house (don’t place the overflow fitting so that it is flush with the house). Make a mark 3” down from the barrel edge for the overflow fitting. Use the mark as a center point to drill a 1” hole for the fitting.





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Overflow Fitting – step 2

Screw the ¾” x ¾” fitting into the 1” hole. The fitting end with finer pipe thread screws into the hole. Use wrench to tighten fitting. Fitting illustrated is made of brass. Nylon fittings work equally as well and are less expensive.



The Bung Cap

Remove the debris trap (kitchen sieve) and turn the barrel to upright position. The 6” hole is now on the bottom.



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Cutting the Bung Cap – Step 2

Use a utility knife to cut open the center seal on the bung cap you removed earlier. Place cap up-side down. Make four 1” cuts at 90º to each other, (cuts meet to form a square cut-out). Remove cut-out from bung cap. Use steady, firm pressure to make the cuts.





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Bung Cap – Step 3

Screw the bung cap back into the barrel. Tighten to reseal with a tool that fits into the cap's recessed notches. Photo demonstrates a wrench used to twist cap closed. Line up the threads on the cap and the threads on the barrel and tighten.

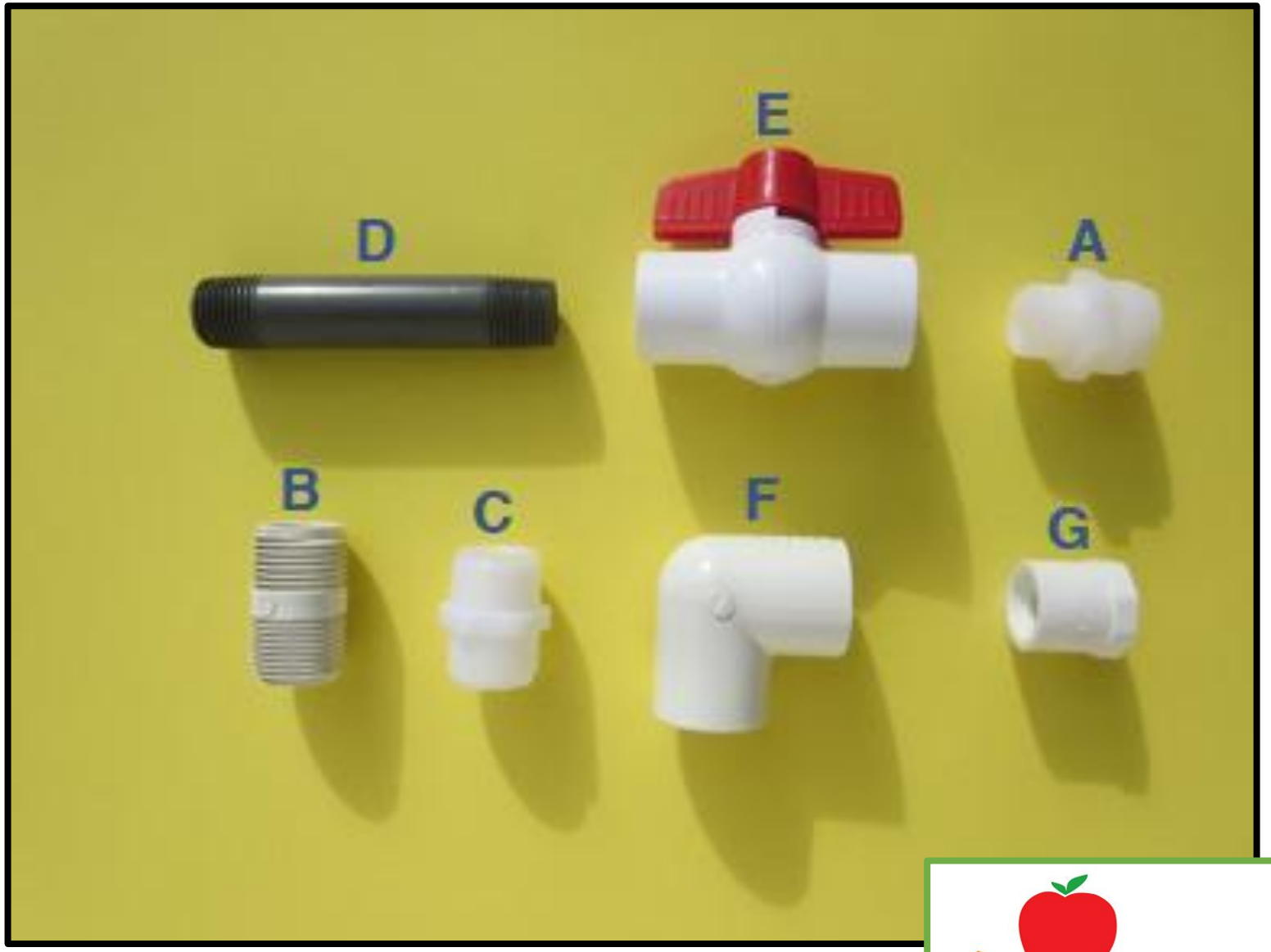


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Assemble the Spigot

Spigot Parts

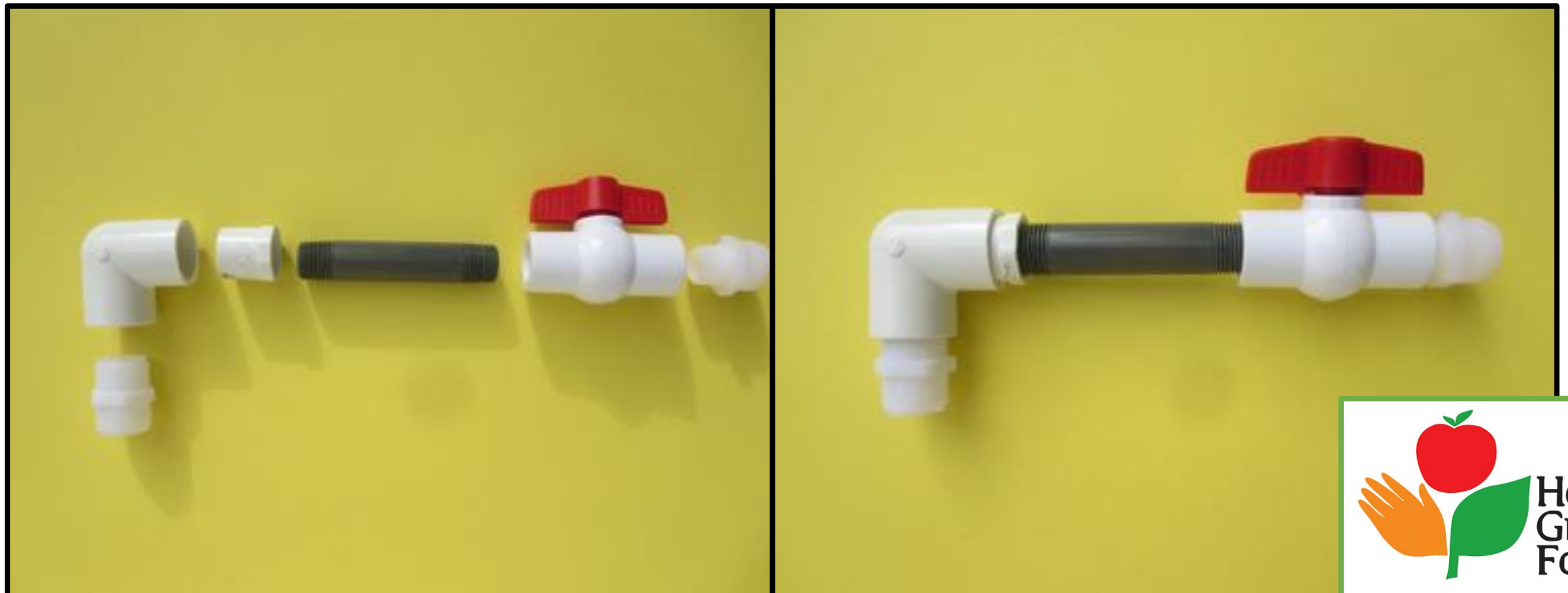
A – ¾” x ½” Nylon Adapter
B – ¾” x ¾” PVC Overflow Fitting (nylon)
C – ¾” Nylon Connecter
D – ½” x 4” PVC Pipe
E – ½” PVC Full Port Valve
F – ¾” 90º PVC Elbow
G – ¾” ½” PVC Reducer



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Assemble the Spigot Step – 2

Assemble the spigot parts as illustrated.



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Assemble the Spigot Step – 3

Screw the assembled spigot into bung cap. Position Spigot as in 3rd photo.



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Rain Barrel Base

Assemble the barrel (inlet hole side up) and place on cinder blocks. Use 2 cinder blocks placed so spigot fits in the gap between them. To increase water pressure, use 3 cinder blocks standing upright under barrel.





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Completed Rain Barrel



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Downspout set-up

Cut downspout with a hacksaw to a length above rain barrel that will allow water to easily fill barrel. Photo shows downspout with a flexible extension bent to the inlet hole.



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Double Barrel set-up

Note ¾” x 12” Overflow pipe extending to second barrel. A threaded ¾” PVC pipe screws into the 1” overflow hole. Parts and barrel may split if stored with water during freezing weather. Always drain rain barrels of water before freezing weather.



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This tutorial is intended for educational purposes only. Home Grown Food assumes no responsibility for water collection methods or use.

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