MAKE YOUR OWN RAIN BARREL

Materials:

1. polyethylene barrel (approx. 55 gallons)
2. ¾-inch lock nut (2)
3. ¾-inch male threaded boiler drain
4. ¾-inch pipe thread to hose bib
5. ½-inch riser adapter (2)
6. 9-inch square drain grate
7. 6/32-inch flat-head bolt and wing nut (4)
8. ½-inch poly drain plug
9. insect screen
10. plastic zip ties

Tools:

- drill,
- drill bits (6/32")
- jigsaw
- 1-inch hole saw
- ½-inch hole saw
- jigsaw metal cutting blade

Chicago Department of Environment

Instructions: Use two people to ensure proper construction. The numbers listed in parentheses correspond to the numbers in the Materials List above, and on the Rain Barrel Protocol drawing which shows a diagram of rain barrel parts and lists needed materials.

Spigot and hose adaptor:

1. Use a 1-inch hole-saw to make a 1-inch hole, approximately 7 inches on center from the base of the barrel. 7 inches allows for clearance of a hose (if attached), and room for a watering can or bucket underneath the spigot, if desired.
2. Wrap the threads of the ¾ –inch boiler drain (#3) with Teflon tap (2-3 revolutions). Insert the threaded end of the boiler drain into the barrel, and apply silicon caulk around the area where the male threaded end enters the barrel.
3. Attach a ¾-inch lock nut (#2) to the threaded end and tighten to ensure a secure fit. You will have to reach into the barrel for this. Two people will make this step easier.

Drainage plug: *This makes for easy draining of the water in the barrel that lies below the spigot.*

1. Use a ½-inch hole-saw to make a ½-inch hole through the barrel about 1 inch from the base of the barrel. Keep in mind, the drainage hole should be placed so that water can be drained away from the building, preferably in the direction of a garden or other landscaping.
2. Wrap the threads of one ½-inch riser adapter (#5) with Teflon tape (2-3 revolutions).
3. Insert the threaded end into the barrel and apply silicon caulk around the area where the male threaded end enters the barrel. This will be on the inside of the barrel; two people will make this step easier.
4. Attach the other ½-inch riser adapter (#5) to the threaded end and tighten to ensure a secure fit.
5. The ½-inch poly drain plug (#8) should fit securely in the internal thread of the riser exposed outside of the barrel.
6. Use a zip tie to secure a small patch of mosquito netting around the end on the inside of the barrel.

Overflow hole:

1. Use a 1-inch hole-saw to make a 1-inch hole, approximately 3 inches on center from the top of the barrel. Keep in mind, the overflow hole should be placed so that water overflows away from the building.
2. Wrap the threads of the ¾-inch pipe thread to hose bib (#4) with Teflon tap (2-3 revolutions).
3. Insert the non-hose threaded end into the barrel, and apply silicon caulk around the area where the male threaded end enters the barrel.
4. Attach a ¾-inch lock nut (#2) to the threaded end and tighten to ensure a secure fit. You will have to reach into the barrel for this.
5. Use a zip tie to secure a small patch of mosquito netting around the end on the inside of the barrel.
6. Attach a hose, if desired, to direct more water to another landscaped location.

Drain grate:

1. Make a pilot hole in the center of the lid of the barrel, using a ¾-inch drill bit.
2. Use a permanent marker to trace a circle 7-inches in diameter in the center of barrel top.
3. Cut the traced area with a jigsaw metal cutting blade.
4. Cut a piece of insect-proof screen (#9), so that it can have a 2-inch overlap on the perimeter of the bottom of the drain gate.
5. Using the zip ties (#10), affix the screen to the bottom of the drain gate.
6. Secure the grate to the top of the barrel using 4 6/32-inch bolts with wingnuts (#7) if the lid is removable. (For non-removable lids use threaded screws of equal diameter.)

Remember to place your barrel on pervious surface so that it will soak up overflow when your barrel is full. For more information on installing and maintaining your rain barrel, please see www.cityofchicago.org/Environment.

Disclaimer: With proper installation, maintenance and use, your rain barrel should function properly. The City of Chicago and its Department of Environment assume no liability for the installation, maintenance or use of your rain barrel. We are not responsible for any rain barrel malfunction, property damage, or injury associated with your rain barrel, its accessories or contents.