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Do-it-yourself home project illustrates paper recycling



If you want to know how waste paper is recycled, try making some of your own recycled paper. To make recycled paper, you will need the following items: a bowl or a bucket, a tray or a roasting pan, some towels or rags, some wire screening and a blender or a spoon. You can recycle just about any type of paper — newspapers, glossy advertisements, copier paper — or a combination of different types.

Here's the procedure:

■ Start by tearing the paper you want to recycle into small pieces. Put the pieces in the bowl or bucket with some water and soak overnight. The next day, drain the excess water. Next, blend the paper into a pulp with a spoon or in a blender. Pour the pulp into the tray or roasting pan with an equal amount of water. Mix

together.

■ Spread a towel or rag on a flat area. Then submerge the wire screen in the pulp mixture. The screen should be covered with pulp. (This step didn't work well for me; I had to pat the pulp mixture onto the screen.) Lay the screen, pulp-side down, on the towel. Quickly press down on the screen and then gently lift off the screen — the pulp should remain on the towel.

■ Cover the pulp with another towel or rag. Although not necessary, you can place a large book or other heavy object on the top of the second towel; if you use a book to press the pulp, cover the towel with a layer of plastic wrap to protect your book from water damage. Wait an hour or two, and then peel the newly formed paper off the towels. Let the paper air dry, and

you are ready to use your recycled paper!

If you try this activity, you will notice that the recycled paper is very different from the paper you started with. First, the paper is not as strong as the original. All recycled papers have this problem.

Paper "fibers get shorter each time they are recycled. This shortening decreases the strength of the paper," notes a newsletter from Quad Graphics, a large printing company. "A hierarchy of uses governs how fiber can best be recycled; computer print-out paper can be recycled into glossy catalog paper; glossy catalog can be recycled into newsprint; newsprint can be recycled into cardboard, and so on." The process of making lower grades of papers from higher ones is called "downcycling" by the paper recycling industry.

Also notice that the recycled paper has a dull gray color. This is produced by the inks leftover from the original pieces of paper. Recycling companies have devised several steps to remove the ink from the paper fibers that they recycle. It is almost impossible to remove all the ink from the paper fibers, so some recycling

plants bleach their recycled paper white or use the recycled fibers to produce a product that doesn't need to be white, such as cereal boxes.

"The technology to make a clean, white sheet of paper from heavily printed mixed papers does currently exist, but the economics of doing so can be prohibitive," said Jonathan Kerr, a manager for a paper recycling company. Extensive de-inking and bleaching also produces a lot of hazardous chemical waste, composed of old ink and de-inking chemicals.

Large recycling plants use the same basic method as this do-it-yourself recipe to recycle millions of tons of paper each year. It's interesting to see firsthand how paper that would have otherwise been thrown into the landfill can be reduced to a pulp and then reconstituted into a piece of paper that can be used again. And recycled again.

If you have a suggestion for a column, a gripe, a success story or whatever, write it down and send it to me, care of the Columbia Daily Tribune, PO Box 798, Columbia, Mo., 65205.