

# RECYCLED SEED PAPER

Paper is made from tree fiber or recycled from previously used paper. Go green and recycle used paper by making paper that will sprout into flowers when planted in the garden.



## MATERIALS

- Used paper (notebook or copy paper works well)
- Water
- Blender
- Measuring cup
- Tablespoon
- Pitcher
- Spatula
- Colander
- Rolling pin
- Cooling rack
- Cheesecloth
- Two towels
- Food coloring
- Small seeds like wildflowers or herbs like parsley and thyme

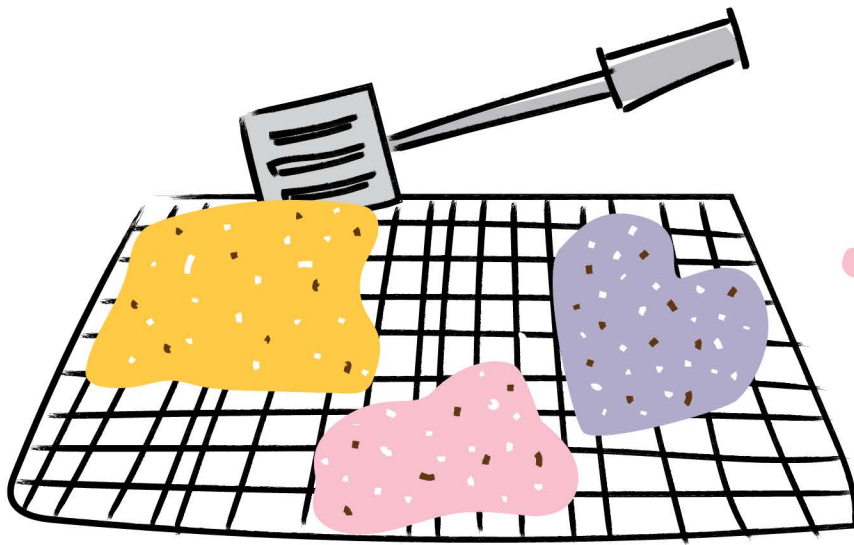
## INSTRUCTIONS

Rip one or two pieces of notebook paper or copy paper into two-inch pieces. Place the paper pieces in a blender and add two cups of water. Blend the mixture until smooth. It should be very soupy. Add a few drops of food coloring. Pour the mixture into a pitcher and add a tablespoon of seeds. Mix with a spatula.

Make a double layer of cheesecloth and place it in a colander. Place the colander in a sink or large tub, and pour the paper mixture through the cheesecloth-lined colander. The paper pulp should remain behind in the cheesecloth and the excess water should run through. Gently press more water from the pulp using the spatula.

Lift the cheesecloth out and lay it flat on a towel. Use a spatula to shape the paper pulp into a square or rectangle if desired. Place another double layer of cheesecloth on top of the paper pulp and another towel on top of that. Press down on the top towel with a rolling pin to get as much water out as possible.





Remove the towels, take the paper out and gently peel the cheesecloth off both sides of the paper. Place the paper on a cooling rack to let it dry overnight. You can try using a hair dryer on a low setting to speed up the drying process, but too much heat will damage the seeds.

Once the paper is completely dry, you can write, draw and even paint on your paper. Send a postcard or a thank you note. You can even plant the paper in soil, keep it moist, and watch for the seeds to germinate and flowers grow!

## WHAT'S HAPPENING?

Fiber is a key part of making paper. Plant material contains the fiber cellulose, which is like the stringy bits of celery. Copy paper and other types of paper that are thin and perfectly smooth are made of small but strong fibers that interlock and stay together. When you blended paper with water and made pulp, all the fibers got broken up. When you poured the pulp onto cheesecloth and squeezed out all the extra water, the fibers interlocked again and held the paper together. Those fibers are also good at holding water. So when you plant your seed paper and water it, the fibers hold the water so the seeds can sprout. The paper will naturally break down in the soil as your seeds grow into plants.

## TIPS

Your paper will likely be thick and stiff. Specialized equipment in paper mills is needed to make thin, smooth paper like we use in notebooks or with copy machines. Try to make thinner paper by using less paper in the blender and spreading it over a larger area of cheesecloth.

## EXTENSIONS

Paper making is as much art as it is science. There are all kinds of ways to decorate your paper as you make it. Place flowers, leaves, confetti, and other decorative bits in the pulp before you dry it. You can also add paint or dyes at different steps of the process for different effects—try adding paint while the paper is drying on cheesecloth. Play around and be creative!

## LEARN MORE

The vertical farm in MSI's *Fast Forward: Inventing the Future* exhibit showcases innovative ways to grow food in urban areas.

## RECOMMENDED READING

*Trash Revolution: Breaking the Waste Cycle*, by Erica Fyvie

*Norton and Alpha*,  
by Kristyna Litten