

Papermaking at Home

Reduce Reuse Recycle! You've probably heard this phrase before. Luckily, paper is really easy to recycle at home. Learners will make new paper from old paper using materials and appliances they probably already have.

Recommended Age: 6+ years old

Time needed: 15+ minutes active time, 30+ minutes waiting time

Link to the Video: <https://youtu.be/wVlyhgZI-X0>



What You Need

- About a cup of warm water
- Used paper (it's OK if you've drawn on it), such as:
 - newspaper, copy/printer paper, magazine paper, junk mail
 - NOT construction paper
- A wire hanger
- A length of nylon stocking
- A blender
- Rags or towels
- A large colander or mixing bowl
- Optional
 - Shiny paper, glitter, or flower seeds
 - A rolling pin
 - A hair dryer
 - An iron and ironing board (or, you can use a towel on a table or countertop)



What You Do

- Bend the wire hanger into a diamond shape, and stretch the stocking over it.
- Tear your paper into small pieces (about 1 inch or smaller).
- Place the paper into the blender so it's about half full.
- Pour warm water into the blender about a half-cup at a time, running the blender after each pour. Stop adding the water when you have a soupy pulp with no big pieces of paper left. Try not to add too much water; super-wet pulp will take a long time to dry out into paper.
 - At this point if you want to, you can add some glitter or small pieces of colorful paper. You can also add some flower seeds. Whatever you add, pulse the blender a couple times to mix it in.



- Place your colander or mixing bowl in the sink. Then place the hanger-and-stockings screen over your colander or mixing bowl.
- Carefully pour the contents of the blender evenly over the screen so that the liquid drains out below and most of the pulp stays on top. You can use a spatula to even out the pulp's shape and thickness.
- Let it drain for *at least* 30 minutes. The longer it drains, the less work you'll have to do later!
- Set a few towels or rags on the table.
- Once most of the liquid has drained out, gently place a towel on the screen and press it down to even out the pulp. Smooth out any lumps and close any holes.
- Pick the screen up and carefully flip it onto the pile of towels.
- Place two more towels on top of the screen and gently press out some of the excess moisture. Continue to press, changing towels if needed. A rolling pin can help this process.
- At this point, you have choices. You can:
 - Let your paper sit for a day or two until it's dry.
 - Use a hair dryer on it.
 - Iron the paper, between two towels or rags. Once it's a little drier, you can just iron it directly to get the wrinkles out.
- Your paper is finished! You can use it the same way you would use any paper. If you put flower seeds in it, you can write a letter to a friend, and tell them they can rip it up and plant it when they're done reading!



Tips for Adults

- This activity takes time, and must be done carefully and deliberately. Put on some relaxed music and be prepared to take a while.
- While the pulp is draining, you can clean out the blender, get the rags ready on the table, and have a snack!

Learning and Skills Connection

- **Developing craft:** Using tools, materials, and practices to engage in the STEAM disciplines
- **Making connections:** Relating to prior experience, meeting professionals, learning about your world and how STEAM appears in it
- **Creativity:** Imagining possibilities, solutions, and forms of expression; thinking outside the box

Doing STEAM with Kids

STEAM stands for Science, Technology, Engineering, Art, and Math. There are lots of ways you can explore these letters, apart or together. Ask your child to make predictions, describe what they see, and to imagine possibilities and solutions. Don't worry so much about the "right" answer. Developing curiosity, and problem-solving skills are important first steps to doing STEAM!

