



PAPER MAKING

TEVA IN A BOX brings participants to the intersection of Judaism and sustainability for a small taste of Hazon's experiential education curriculum. Learn more at hazon.org/teva.

PAPER-MAKING is a hands-on activity that is appropriate for all ages. Paper scraps are blended up and recombined to make new "recycled" paper. Participants could be asked to bring newspapers or other papers that they would like to recycle. And for even more fun, by incorporating seeds into the paper, it becomes plant-able!

LEARNING OBJECTIVE To teach about recycling in a fun and interactive way, and demonstrate the amount of water needed to produce resources

JEWISH FRAMING As we learn from our tradition, we have a responsibility to care for trees and to plant trees for the future. Recycled papermaking is a way to make new paper without needing to harvest new trees. In what ways does Judaism compare the Torah to trees? In what ways can Judaism be compared to a tree?

// *Once Honi was walking along the road when he saw a man planting a carob tree.*

Honi asked, 'How long before it will bear fruit?'

The man answered, 'Seventy years.'

Honi asked, 'Are you sure you will be here in seventy years to-eat from its fruit?'

The man replied, 'I found this world filled with carob trees. Just as my ancestors planted for me, so I will plant for my children.'

— Babylonian Talmud Ta'anit 23a



Teva works to fundamentally transform Jewish education through experiential learning that fosters Jewish, ecological, and food sustainability. Teva is a program of Hazon. Learn more at hazon.org/teva.

EQUIPMENT & SUPPLIES

ESTIMATED DURATION

30-60 minutes

EQUIPMENT	25 PEOPLE	50 PEOPLE	100 PEOPLE	SUGGESTED MATERIAL SOURCES	NOTES
Buckets for water	2	5	10	Purchase at a local dollar store	6 quart storage box works well
Blender	1-2	2-5	4-10	Oster 006629-BK0-NPO: 10-Speed Blender, Black	Dedicated to papermaking
Screens (deckles) 	15-25	25-50	50-100	2 materials needed: Framing Wood: Assorted picture frames available at thrift stores/ dollar stores Screen: Window and door screen, polyurethane closeout/ 600 foot rolls	For variety, try using screens that are different sizes. Cover with plastic or wire screening. Pull around the edge of frame (like a canvass) and staple. Or buy them.
Sponges	25	50	100		One per person
Sharpies	5	10	20		
Bowls or bins	3	6	15		Large
Cups	25	50	100		One per person
Electric water kettle	1-2	2-4	4-8		To heat up water to soften paper scraps
Long handled spoon	1	2	4		To stir paper pulp

SUPPLIES	25 PEOPLE	50 PEOPLE	100 PEOPLE	NOTES
Recycled paper: Used paper/scraps/ newspaper	30 pages	60 pages	120 pages	From the recycling bin
Colored paper/ construction/tissue paper	5-10 pages	15-20 pages	25-30 pages	Optional, to make colored paper. Tear 2 pieces of paper per batch to add color
Cardboard boxes or thick brown paper	>7 boxes	>15 boxes	>45 boxes	Each piece of newly created paper needs to have room to go onto a piece of cardboard to dry
Optional: Seeds or dried flowers/ glitter/ leaves				To add to paper
Optional: Tarp/Newspaper				To go below the tables and catch mess

RUNNING THE PROGRAM

SEE HOW IT'S DONE!

For a detailed demonstration by a Teva educator, visit hazon.org/teva-video-papermaking

SET-UP

- 1 Begin heating up water in your electric kettle.
- 2 Organize program materials, supplies and equipment, so that it is all easily accessible and spread out. Place sponges/cups together, and hand one of each to each participant when they arrive.

DIRECTIONS

- 1 Begin heating water in the electric kettle.

- 2 Tear up paper

White Paper

Tear a pile of white, ready-to-be-recycled, office paper into little pieces (quarter inch to half an inch in size – the smaller the better). Make a pile about the size of a box turtle or big bowl of soup. You are tearing the paper to expose the fibers.

Colored Paper

Keeping the piles separate, tear up a smaller pile of colored paper (construction or tissue). If you plan to make a second batch of a different color, tear up twice as much white and make a pile of the new color now.

While students are tearing paper, review the Jewish framing on the first page. Ask students to discuss the questions about Judaism's connection to trees in small groups.

- 3 Put it in the blender



Adjust the white-to-color ratio depending on how strongly colored you want your new paper to be. I suggest a 1/4 colored construction paper to 3/4 white ratio. Or 1/3 to 1/2 colored tissue paper to 2/3 to 1/2 white.

Fill up the blender with paper. Don't squish it down! (A packed blender won't really churn into good pulp and will burn out the motor.)

4 Add hot water and blend to make pulp



Fill up the blender with hot, but not boiling, water, within 1-2 inches from the top so it doesn't overflow then blending. The hot water helps the paper fibers really "loosen-up" before blending. Note about color: It's all about trial and error! Paper making is pretty forgiving. You can adjust the color by adding more white or colored paper to the blender after you have already blended it. Have fun with it! Pour pulp (from blender) into a big bowl, bucket or other container.

5 Dilute the pulp with another (almost) blender's full of cold water.

Stir up the mixture (with hands or spoon, etc.). This is when you can add small seeds (use lots of them!), or flower petals or glitter – or anything else fun and fairly small/flat.

6 Pour it on your deckle (paper pulp goes on the "flat" of the deckle frame)



Pour mixture gently on to the top of the deckle screen, over a bucket or sink. Use cup or other scooping tool. To get a smooth piece of paper try to pour the pulp evenly and SLOWLY onto the deckle. Then don't touch it! Trying to fix up holes with your fingers usually just makes more holes. Pour a little more pulp in spots that look too thin. Use your finger to wipe away the pulp around the deckle's wooden border.

7 Get that water out (the more you get out, the faster your paper will dry)



Using a sponge on the back of the screen (the side that does not have paper), pat it and keep squeezing out the water into the bucket or sink until you've removed all the water you can.

At this point, you can add any leaves or cool flowers to the paper's surface – when the paper dries, the leaf or flower will peel off and leave an imprint!

Tell your participants that the cup is to squeeze out their sponge into. They will need it both when they are adding pulp to the deckles, as well as once the deckle is flipped onto cardboard.

8 Gently flip the screen (paper side down)



Flip the screen onto cardboard to squeeze again & leave to dry. Once flipped, don't lift the deckle. Continue to sponge the back/inside of the screen (use the sponge to pat up water – sliding it may tear your paper). When you've gotten out all the water you can, try to carefully lift up a corner of the screen. *If the paper sticks to the screen, it needs more sponging (or your paper is too thin.)*

9 You're done!



Once you have lifted the frame, leave your *new* paper exposed to dry. Write your name by your piece. It will dry in 1-5 days and, when dry, should peel right off of the cardboard with a little help. Enjoy and use your homemade paper to write a special letter to a friend, a prayer, a blessing, a birthday invitation – brainstorm your own ideas! If you want to send the paper home the same day, cut the cardboard to size so each participant can take it home.