

Activity 1.4 Making Homemade Garden Paper

Overview: Through making their own paper students will learn the origin of paper, its history, folklore, and the use and origins. Students will add seeds to plant the paper in the ground.

Lesson Background: Paper is a mat held together by a fiber's roughness, and can be made from almost any fibrous material (cotton, hemp, or recycled paper).

History of Paper:

Ancient Egyptians invented the first substance like the paper we know today called Papyrus. Papyrus scrolls were made by taking slices of the inner part of the papyrus stem, flattening it and then poured into a hard, thin sheet. The word "paper" comes from the word "papyrus."

Papermaking was invented in China in the second century A. D. The paper was made one sheet at a time until 1798. The process begins when trees (grown specifically for papermaking) are harvested and transported to a paper mill. At the mill, machines strip away the bark and shred the logs into millions of chips. The chips travel to gigantic pulp cookers where chemicals and steam are added. The mixture is heated and pressurized and breaking the chips into even smaller pieces. Water is added and the final product which turns the chips into a pulp. After cleaning and screening the pulp, dyes and pigments may be added. The paper is spread onto a wide screen. After the water drains, the paper remains and the paper is dried for its final stage.

INSTRUCTIONS:

1. Rip Paper into small pieces
2. Soak in Warm Water (you can skip this step and just add paper and warm water in blender)
3. Add mixture to blender until soupy (make sure there is no glue or glossy paper or it will clog the blender)
4. Start blender slowly at first, then speed up

Grade Levels: Elementary and above

Core Subjects: Science, Social Studies, Visual Arts and Language Arts

Objectives: Students will be able to identify the origin, use and history of paper. They will practice a method of recycling and reusing natural materials.

Materials:

- Lint
- Screen- window
- Rolling Pin
- Blender
- Recycled Paper
- Warm Water
- Wash tub, Large Bowls or sink
- Table for drying
- Absorbent towels
- Optional- seeds, lint, thread, flower petals, leaves*
- Add thread after mixture is blended. If you want to use flower petals leaves or seeds, place them on the screen before pouring your mixture.

5. Lay a large towel, with a screen on top. (add flower petals, seeds and spread onto screen if using)
6. Add paper mixture, mush paper by hand, cover with another screen same size use rolling pin to evenly smooth out paper
7. Add absorbent towel to top.
8. Replace towels if wet, to aid drying and prevent molding paper.
9. Leave flat and let dry. Drying times varies. 3 hours to 3 days depending on mixture.

Notes about Types of Paper:

- Newspaper makes paper thinner and grey
- White computer paper makes it lighter but chunkier
- Tissue Paper makes the paper finer
- Glossy papers should be avoided if possible

Options for Types of Paper to Use

- Newspaper
- Computer Paper
- Magazines
- Egg Cartons
- Old Cards
- Toilet Paper
- Non-waxed boxes (pre-soak in warm water)
- Office Paper
- Tissue Paper
- Napkins
- Construction Paper

Resources:

Pioneer Thinking: A Refreshingly New Perspective
<http://www.pioneerthinking.com/makingpaper.html>

Classroom Discussion before and during Paper Making:

Recycling and Reusing Materials
 History of Paper

Leave Participants with Instructions on How to Plant Seed Cards

- Let paper dry completely.
- Cover with ¼ inch to 1 inch of soil (depending on seed size)
- Water daily or keep moist until seeds sprout.
- Include names of plant seeds used.