

## Wildflower Paper

<b>Created by:</b> IRRC	<b>Date:</b>
<b>Subject:</b> Science, Language Arts	<b>Time Required:</b> Depending on age- 10 minute discussion 5-10 minute activity
<b>Grade:</b> 4+	

<b>Overview</b>	Students will make plantable seed paper and they will learn the growing process of plants.
<b>Goal(s) &amp; Objective(s)</b>	Students will learn how to make plantable wildflower paper and they will learn how rangelands and sheep relate.
<b>Materials</b>	<ol style="list-style-type: none"> <li>1. Plant seeds- (best if plant seeds can be scatter planted rather than spaced evenly in rows)</li> </ol> <p><b>Original plantable paper supplies:</b></p> <ol style="list-style-type: none"> <li>1. Blender</li> <li>2. Cookie cutters</li> <li>3. Paper (construction or printing paper works best, newsprint has too much dye)</li> <li>4. Water</li> </ol> <p><b>Simplified version:</b></p> <ol style="list-style-type: none"> <li>1. Newspaper</li> <li>2. Toothpicks</li> <li>3. Flour/water paste</li> </ol>
<b>Teaching Activities:</b> <i>Instructional Approaches/Strategies</i>	<p><b>Plant growing-Introduction :</b></p> <ol style="list-style-type: none"> <li>1. Discuss how a plant grows.</li> </ol> <ul style="list-style-type: none"> <li>• <b>What do plants come from?</b> Plants start from seeds.</li> <li>• <b>What do plants need to grow?</b> The right conditions (water, soil, sunlight (warmth), carbon dioxide)</li> <li>• <b>If they have the right conditions what happens?</b> the seed germinates: (breaking from the seeds' shell, the shoot pushes through the soil towards sunlight.</li> <li>• <b>What happens after the seed germinates?</b> Your seed has now turned into a plant- it will have leaves above the soil and roots below the soil.</li> <li>• <b>What are some common plant parts?</b> Leaves, stems, roots, and flowers</li> <li>• <b>How doe wildflowers &amp; sheep relate?</b> Wildflowers are forbs, which are a sheep's favorite type of plant to eat.</li> </ul>

## Procedures

1. After completing the introduction, Explain what plantable seed paper is and have the students pick out a cookie cutter.
  - Depending on the age of students you can either make the paper paste during class or have it prepared before.

### **Paper Paste Instructions: (see attached pulp recipe, for more specific details)**

- I. **Mix it:** Tear up scrap paper and purée in a blender with water to make a thick, slushy pulp. 2 pieces of paper makes enough for one thin cookie cutter. Colored paper is fun however, yellow does not make a pretty pulp- blues, pinks, reds are best.
- II. **Seed it:** Add seeds to the pulp just before you mold it (Recommended for younger students: this anchors the seeds better) OR add seeds on top of the pulp after it has been placed in the mold. (Optional for older students: this will let you have artistic control over seed placement, but doesn't anchor the seeds as well)
- III. **Mold it:** scoop up pulp, squeezing some of the water out. Press into cookie cutter pressing out more water. Do not make it too thick.
- IV. **Dry it:** Press out excess liquid with a sponge, towel or newsprint and transfer the wet, seeded paper to a flat surface. Or dry it on cement- it sucks the water out quickly.

**You can leave the paper out to air-dry thoroughly**

**Closure: Recycling!** Explain to students that this is not littering, that the paper will dissolve away once it is planted. The soil, water, and bugs will decompose the paper and it will become part of the soil, while the seeds will sprout into beautiful flowers.

**\*\* Due to seeds getting wet with the paper paste- this will trigger germination so not all seeds will sprout. To counter this; use twice the amount of seeds as usual.**

### **Simplified Version:**

Rip newspaper into strips

Create a flour and water paste

Dab flour paste on the seed with a toothpick. Spread seeds out along the Strip, gluing them down with the flour paste.

**Pulp Recipe: (~2 pieces of paper per student)**

- **Rip 3 pieces of paper and place in blender with 6ish cups of water blend till pulp is smooth-**
- **Blend until paper looks like the same consistency as a smoothie. Add water as needed to create this smooth pulp. You will never have too much water because, you can drain the excess water out and you will squeeze the majority of the water out of the pulp right before molding it.**
- **Do not store for more than 12 hours- the paper will turn into slime instead of pulp.**
- **Shredded paper works really well.**

**Plantable Seed Paper**



**Instructions:**

Plant wild flower cookie in garden in soft soil; sprinkle soil over flower cookie to weight it down and then water. Wait for flowers to grow, should take 4-6 weeks. Paper will dissolve away with water and with the sprouting of the plants.

**\*\*This is Non-Edible**

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