



## Lesson Title: Let Me Give You a Hand Planting

*Grade: K-2*

*Duration of Lesson: 50 minute class*

*Brief: Students will understand that seeds grow in the pattern of which they are planted.*

### *Materials:*

- Seeds - 1 packet per each 4 students. Choose small seeds like lettuce, spinach, carrot seeds, or any food seed that germinates and grows quickly in your area. If you wish to do flowers for Mother's Day, poppies work well.
- Construction paper cut into pieces (pattern below)
- Paper towels cut into pieces matching the construction paper size.
- White glue (Elmer's or similar brands)
- Scissors
- Copy of planting instructions and poem cut into strips for each student.
- Hole punch
- Yarn or String
- Shallow tray

### *Key Terms*

- Pattern
- Seed
- Color
- Size
- Plant
- Food
- Growing
- Root

Standards / Objectives

**Montana State Standards:**

Science: Content Standard 1: Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate results and reasonable conclusions of scientific investigations. Benchmark 1.1 Content Standard 3: Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment. Benchmark 3.3

**Understanding(s) /Big Ideas:**

Students will understand that the pattern seeds are planted in will be the pattern plants grow in due to anchoring by roots.

**Essential Question(s):**

Do roots anchor plants in place?

**Students will know:**

Vocabulary terms related to planting seeds. One of the functions of roots is to anchor plants. Plants grow where the seed germinates.

**Students will be able to:**

Determine by seed patterns where seeds were planted or dispersed.

**Performance / Observations**

**Performance Task(s):**

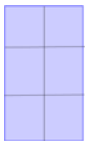
Create a hand pattern with seeds and poem attached.

**Other Evidence:**

Students will use key terms in discussing their work.

**Learning / Inquiry Activities**

**Prep:** Cut construction paper into 6 pieces per the diagram below to get enough pieces for 6 students out of each sheet.



regular sized construction paper

Cut paper towel pieces the same size as the construction paper pieces.

Copy, fold, and hole punch the instructions and poem page below which includes the planting instructions and poem. Fold on the dotted line so you have planting instructions on one side and the poem on the other side of each piece of paper when it is folded in half. Punch a hole in the area of the circle once the paper is folded in half.

Cut 6” yarn or string pieces.

**Introduction:**

Read the books of your choice, each book gives a good explanation of how plants grow from

seeds:

*How a Seed Grows* by Helene J. Jordan  
*Plant Secrets* by Phyllis Limbacher Tildes  
*The Carrot Seed* by Ruth Krauss  
*A Tiny Seed* by Eric Carle

### **Learning Activities:**

Let students know that they will be making a pattern from the shape of their hand. On the pattern they will be gluing seeds. They will take their project home as a gift to someone special. This special person will see the seeds sprout in the shape of the student's hand. They will be helping to continue the life cycle of the seed and will watch the seedlings grow into vegetables or flowers with their special person. Let students know that the plants will grow in the pattern that the seeds are glued to the hand because the roots will anchor the plants in place. Pass around several of the seeds, ask students to describe the seeds, prompt students to use key terms to describe the seeds.

#### **Step 1:**

Hand out a piece of construction paper and ask each student to carefully trace their hand and then to write their name on the hand in their best writing. They should keep all of the letters of their name inside of the tracing. (Illustrate on the chalkboard)  
Next, ask students to carefully cut out their hand pattern.

#### **Step 2:**

Hand out a paper towel and ask students to trace the construction paper cut out of their hand onto the paper towel. Markers work well. They need to trace lightly as the towel will tear. Next ask students to cut out the hand shape that they just traced on the paper towel. Ask students to write their name on the paper towel. They need to do this lightly as the towel will tear. Discuss the sequence of the patterns that they made with their hand.

#### **Step 3:**

Lay the construction paper hand aside. Have each child lay their paper towel hand shape in a shallow tray and put a **thin** line of glue around the very edge of the paper towel hand pattern. For younger children it is best to assist them with this process.

#### **Step 4:**

Sprinkle seeds over the glue, making sure to have enough so that the pattern is outlined, it is necessary so that the first seedlings will duplicate the hand pattern. Shake extra seeds back into the shallow tray so that they can be reused. This is much the same process as sprinkling glitter onto glue shapes.

#### **Step 5:**

Ask students to carefully lay their construction paper pattern on their paper towel hand pattern in the tray with all sides matching. Press the two layers together firmly. If the writing on the

hand ended up on the inside of the shape, ask students to write their name very neatly on the hand again.

Step 6: Punch a hole in the completed hand pattern.



Step 7: Have students attach one of the folded poem and planting instructions to each “Give Me a Hand Planting” pattern with yarn or string.

Step 8:

Discuss with the students how they made a pattern, planted seeds in a shape (hand shape), and let them know that they will see the shape of their hand form in the soil with tiny plants called seedlings. Ask students to report back to you about their plants.



#### **Extensions for this lesson:**

Plant a sample in the classroom and watch the development of the plants.

Try different patterns, like numbers or letters and grow them in the classroom.

Make handmade paper and use it for the hand pattern.

Plant different varieties of lettuce for colored patterns (purple, dark green, chartreuse, and trout back). For example, fingernail areas could be purple.

Ask students to write their own poem about seeds.

Draw the mature plants with markers for an art project.

Montana Department of Agriculture

In part with Agriculture in Montana Schools



### **Planting Instruction**

*Plant your "Give Me a Hand Planting" gift 1/2 inch deep in potting soil or well worked garden soil with the paper towel side up.*

*Keep moist and watch for the seedlings to sprout in the shape of the special hand that gave you the gift. Check often on the plants with the child who gave you the gift and talk about plants, how they grow, and how much of our food comes from seeds and plants.*

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### **Life of a Plant**

*A plant will grow from a tiny seed,  
Some water and sun is all you need.  
First the roots grown underground,  
They suck up minerals from all around.  
Then come stems, some tall, some stout,  
And next the branches spread about.  
Leaves grow in all shapes and sizes,  
Watch this new life as it rises.  
Flowers bloom from buds on stems,  
They are as pretty as precious gems.  
Some plants give us juicy fruit,  
Some have vegetables at the root.  
New seeds travel to and fro,  
By wind and water, on the go.  
And the cycle keeps on going,  
Soon new stems and leaves are showing.*

*- Risa Jordan*

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