

# The Life of a Seed

## Objectives:

*Students will!*

- Learn that seeds are alive and follow a life cycle similar to humans
- Understand that seeds become plants through the process of germination
- Engage physically with different seeds

## *Educator Notes*

- Seeds can lay dormant for years until the proper conditions arise for germination
- The largest seed in the world is the coconut
- Seeds contain entire baby plants that grown into adult plants with the proper ingredients (air, soil, water, and sun)

## Materials:

- Packets of lettuce seeds
- Germinated lettuce seeds
- Head of lettuce
- Paper towels
- Small plastic bags
- *The Carrot Seed* by Ruth Krauss

## Preparation:

Five to seven days before this lesson, the educator should prepare the germinated lettuce seeds. To germinate the seeds, moisten a paper towel and fold in half length-wise. Place 10 lettuce seeds evenly on one edge of the paper towel. Fold the other edge over the seeds and place the seeded paper towel in a plastic bag labeled with the date. Until the seeds begin to sprout, unroll the paper towel and blow gently on the seeds once daily. Prepare additional seeds following the same process depending on the class size. The teacher should obtain *The Carrot Seed* by Ruth Krauss for the Wrap-Up activity.

## Key Vocabulary:

seeds | life cycle | germination

## Activity:

Students will be divided into small groups for the first part of this lesson. The educator can begin by asking if seeds are alive and if the students have any examples of seeds that they have encountered or eaten. Next, the teacher will ask students to examine the lettuce seeds in the packet at each table. The educator will then give each table several pre-germinated lettuce seeds to examine. The teacher should encourage the students to discuss what is happening to the germinated seeds. To conclude this exploratory experiment, the teacher will show the class a head of full-grown lettuce and explain that with the proper ingredients and care the germinated seeds in front of them grow into lettuce – delicious food for us!

**Wrap-Up:**

The teacher can conclude the lesson with a reading of the book, *The Carrot Seed*, by Ruth Krauss.

**Extension Activity (K-5):**

Older students can assist with the germination process outlined under the Materials & Preparation section above. They can record (with pictures and words) daily observations of the seeds in personal seed journals. Teachers working with older students also can introduce more advanced vocabulary and details about the germination process (i.e. the seed coat absorbs water and activates enzymes that release the stored food to the embryo; the seed coat splits allowing oxygen to reach the embryo; root tip emerges).

**Sources:**

<http://www.amazon.com/Carrot-Seed-60th-Anniversary/dp/0064432106>

[http://dug.org/storage/school-garden-curriculum/Introducing\\_Seed.pdf](http://dug.org/storage/school-garden-curriculum/Introducing_Seed.pdf)