

Plant Seed Design Challenge

Student worksheet

Name: _____

Date: _____

Directions: Complete each section as described.

1. Plant Seed Dispersal

a. Below, write down at least three different ways plants disperse their seeds.

1. _____

2. _____

3. _____

4. _____

b. Describe in your own words what a burr is and what its features are.

2. Plant Seed Design

Build a plant seed with the materials that you have been provided. The seed needs to fulfill the following requirements:

- The seed needs to be able to attach itself to animal fur (the wool glove).
- The seed needs to stay attached to the wool glove as long as possible while it is transported through an obstacle course.

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- a. Draw your seed design idea in the space below. Label the main parts and materials of your design. While designing your seed, keep in mind what structures or features a natural burr has that make it stick to animal fur.
- b. Talk to your group and agree on a single seed design that you will build. This can be a combination of two or more design ideas. Draw a picture of your design below. Label the main parts and materials of the design.

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3. Plant Seed Testing

a. Test and optimize your seed design.

- Put on the wool glove.
- Hold your hand with fingers extended parallel to the ground.
- Attach your seed to the glove.
- Walk through the obstacle course while keeping your hand extended and parallel to the ground with the seed still attached as shown in the figure on the right.
- Mark the spot (with tape on the floor) where the seed falls off the glove.
- If you like, you can also time your test run through the obstacle course with a stopwatch.



b. Write down below which of your design features did work or didn't work and how you want to improve your design.

4. Reflection

Make notes of other student's design solutions below.

- How are they different or similar to your design?
- What made them perform better or worse than your design?