



## Seed Dispersal Challenge

*Kiki Contreras, Middle School Science  
The Evergreen School, Shoreline, WA*

To push the plant reproduction lessons in my Botany unit beyond just memorizing and labeling plant anatomy, I developed a project to help students explore various seed dispersal adaptations. To begin, students were given several short video and text resources about different seed dispersal mechanisms (wind-blown, animal, water, gliders, fire etc.). Students put their understanding to the test by drawing several environmental factors out of a hat and designing a seed that could successfully disperse under those conditions. Plastic Easter eggs, beads, pipe-cleaners, popsicle sticks and other recycled materials turned into seeds that, for example, grow on a vine, live in a hot and arid climate, and are surrounded by herds of large, furry mammals. Students practiced their engineering skills by creating several iterations of their seed and testing them until they arrived at a product that worked. Students who drew ‘aquatic environment’ tested and improved their designs in a water bath, while students who drew ‘windy environment’ tested in a wind tunnel. Students were creative in conducting their tests, including using faux fur coats to represent large mammals.

### Teacher Reflection

Plants are among the most overlooked and underappreciated life forms, but my students came away from this project with a sense of awe and respect for the wide range of seed dispersal mechanisms employed by plants. The skills that my students developed—applying general knowledge to a novel situation, perseverance, and resilience in the face of failure—made this project truly special.

### Student Reflections

It was fun to build my own seed and create a dispersal method for it because I think it really helped us understand how cool it is that plants are able to adapt to distribute their seeds in different environments. —Else

I liked this project because it made me think of an ecosystem in a lot more depth. I also liked how we got to make the seed and go through prototypes until we had it perfect. —Nayan