**Design the Best Disperser!**

**Overview:** Students are challenged to design the best disperser—a wind-dispersed “seed” that travels furthest in different habitats surrounding schools using simple craft materials.

**Background:** For detailed background information, please see the “Connecting Landscapes” PowerPoint and lesson plan provided on the GK-12 website.

**Materials:**

* Background information PowerPoint
* Seed-constructing materials (suggestions)
  + Beads (1-3 sizes, all fairly small)
  + Yarn and/or string
  + Glue
  + Scissors
  + Tissue paper or substitute (e.g., coffee filters)
  + Note cards or paper board
  + Copy paper
  + Other lightweight craft materials if desired. Some other materials that work well are cotton balls, lightweight fabric, velcro dots, small foam balls, etc…
* Measuring tape
* You will also need 1 – 3 different “habitats” surrounding the schoolyard. One of these should be a windy area. The other(s) should be an area with lower wind speeds and/or gusts, such as a wooded area, an area downwind of the school (lower wind), or others…

**Instructions:**

1. Design wind-dispersed “seeds” with provided materials and goals in mind
2. Each “seed” must use a bead seed body
   1. System for seed bodies
      1. Large seed body = double your actual distance
      2. Medium seed body = keep your distance the same
      3. Small seed body = half your actual distance
3. 2+ habitat types (e.g., one windy and one other, decided as a class)
4. In each habitat type, each student conducts three seed release trials. At a marked spot on the ground, each student will release their seeds (one at a time) and record their three distances on a piece of paper. Make note of which habitat type the release was conducted in.
5. There are multiple ways to win. A student wins if:
   1. They have the longest average dispersal distance in habitat 1 area
   2. They have the longest average dispersal distance in habitat 2 area
   3. They have the longest average dispersal in both habitats combined ("weedy" winner)