



Program Title: Pollinators and Seed Spreaders

Audience: 2nd grade students

Program Theme: Animals assist plants with pollination and seed dispersal. Plants actively attract the pollen-moving animals that are the best suited to their specific needs. Plants package their seeds in containers intended to be dispersed by either inner or outer animal transport!

Program Goals: To learn about the process of pollination and how pollen-moving animals assist plants, students will simulate the actions of pollinators and the plants that need them. Students will then act out the seed-spreading methods used by plants, and identify how the seed container determines its dispersal. Next we'll design our own adaptations, for flowers to attract pollinators or for plants to spread their seeds.

Next Generation/Common Core Connections:

Topic: 2-LS2 Ecosystems: Interactions, Energy, and Dynamics

Dimensions: Cause and Effect, Structure and Function

Program Outline:

Activity 1: POTENTIAL POLLINATORS (60 min.) – The real purpose of flowers is to make seeds! Where pollen from one flower enters the egg cell of another flower, a seed will form. How are they going to move their pollen around? Plants make the most of their animal neighbors that are passing by!



Teachers and other adults will be helpful in participating in this simulation. The teacher will be one of the Potential Pollinators. Any other adults will be Plants.

Objectives: Students will simulate the process of pollination. Students will understand the interdependence of plants and the animals that pollinate them. Students will identify the strategies that plants have to attract specific pollinators, and the characteristics of the pollinators that make them uniquely suited to their pollen-moving task.

Intended Outcomes: Students will act out the process of pollination. Students will match themselves with their specific Pollinator/Plant partners.

Activity 2: SEED DISPERSAL CHARADES (40 min.) – Now that the seeds are formed, how will they spread out, to not compete with their parent plant for resources? Working in sub-groups, students will use a fact card to plan and present a short charade to the rest of the group, showing how their plant disperses its seeds. The rest of the group will guess each strategy employed.



Teachers and other adults will be helpful in working with the sub-teams, prompting students to fully dramatize the info on their fact card. Humor is welcome!

Objectives: Students will act out seed dispersal methods used by plants. Students will identify how the seed container determines its dispersal. Students will understand why the variety of seed dispersal systems is beneficial.

Intended Outcome: Student sub-groups will be able to teach each other the seed dispersal strategies that plants use, through role-playing.

Activity 3: DESIGN TIME (20 min.) – Now that we’ve learned about the multitude of surprising adaptations that flowers have to attract pollinators, and that plants have to spread their seeds, let’s design our own!

Objective: Students will design their own flower with specialized pollinator-invited, or design their own seed with a specialized animal-dispersal strategy.



Teachers and other adults will be helpful in encouraging creativity in the students’ thinking and designing, while keeping their inventions focused on pollination and seed dispersal strategies.

Intended Outcomes: Students will draw their own flower or seed, with specialized pollination or dispersal features, and will be able to explain their design reasoning.

Successful completion of this program will help support your students’ proficiency in NGSS

Performance Expectations:

2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

(LS2.A: Interdependent Relationships in Ecosystems

Plants depend on animals for pollination or to move their seeds around.)