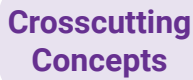


NGSS Performance Expectation		In this unit, students:
2-PS1-2	Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	Conduct tests and make predictions about which materials and properties of materials are good or poor choices for picking up and dropping off “pollen.”
2-LS2-2	Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Imagine, plan, create, and test a hand pollinator that picks up and drops off pollen from model pumpkin flowers.
K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	Learn about declining populations of natural pollinators and design a tool that can help pollinate flowers.
K-2-ETS1-2	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	Plan and create a physical hand pollinator that will fit inside and collect pollen from a model pumpkin flower.
K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Observe and compare the efficacy of different materials for picking up and depositing “pollen.”



**Crosscutting
Concepts**

Structure and Function

The shape, size, and features of an object or living thing determines many of its properties and functions. In this unit, students learn about the mutually beneficial relationship between flowering plants and their pollinators. Students think about the features of pumpkin flowers and pollinators to understand how their structures interact to enable pollination. They apply this learning as they consider which materials to use in their hand pollinators, recalling how the fuzzy legs and small size of the bee make it a good pollinator for pumpkin flowers.

Cause and Effect

Events have causes, sometimes simple and sometimes multifaceted. In this unit, students interact with the basic progression of steps in the pollination process that are needed for fruits and vegetables to grow. They consider what happens when one does not occur. They learn about threats to the bee population and consider the causes and implications of changes in the pollination system.