

Powerful Pollinators



1ST – 5TH GRADE

45 MINUTES

Look beyond honeybees to investigate the diverse array of invertebrate pollinators and their importance.

LEARNING OBJECTIVES

AWARENESS

Learners develop awareness that pollinators contribute to the health of our planet.

COMPASSION & EMPATHY

Learners develop compassion for the less celebrated pollinators of the world.

EMPOWERMENT

Learners are empowered to protect pollinators.

MISCONCEPTION WE ADDRESS

That bees and butterflies are the only pollinators. Learners explore the diverse types of pollinators, their unique roles, and how each contributes to the environment in different ways.

CURRICULUM STANDARDS SUPPORTED

COLORADO ACADEMIC STANDARDS (2020) & NGSS

SC.K.3.1

STANDARD 10

Patterns are observed when measuring the local weather, including how humans and other organisms impact their environment.

K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

SC.1.2.1

STANDARD 5

All organisms have external parts that they use to perform daily functions.

1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow and meet their needs.

SC.2.2.1**STANDARD 6**

Plants depend on water and light to grow, and on animals for pollination or to move their seeds around.

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

SC.2.2.2**STANDARD 8**

A range of different organisms lives in different places.

2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

SC.3.2.1**STANDARD 5**

Organisms have unique and diverse life cycles.

3-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction and death.

SC.3.2.2**STANDARD 6**

Being part of a group helps animals obtain food, defend themselves and cope with changes.

3-LS2-1 Construct an argument that some animals form groups that help members survive.

SC.3.2.3**STANDARD 7**

Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.

3-LS3-1 Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents, and that variation of these traits exists in a group of similar organisms.

3-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.

SC.3.2.4**STANDARD 7**

Some living organisms resemble organisms that once lived on Earth.

3-LS4-2 Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates and reproducing.

SC.3.2.5**STANDARD 8**

Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.

3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

SC.4.2.1**STANDARD 5**

Organisms have both internal and external structures that serve various functions.

4-LS1-1 Construct an argument that plants and animals have internal and

external structures that function to support survival, growth, behavior and reproduction.

SC.MS.2.2
STANDARD 5

Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring.

MS-LS1-4 Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

SC.MS.2.5
STANDARD 6

Organisms and populations of organisms are dependent on their environmental interactions, both with other living things and with nonliving factors.

MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

SC.MS.2.10
STANDARD 8

Genetic variations among individuals in a population give some individuals an advantage in surviving and reproducing in their environment.

MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

NEXT STEPS

Request a program

Tell us your grade level, group size, preferred dates and site address, and our team will confirm availability and send a program agreement. If cost is a barrier for your school or site, ask about partial scholarships when you inquire — we would rather find a way than turn a group away.

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