



Slow Food®



Education  
Curriculum



# We Are Family

## BEES & PEOPLE



LESSON ONE



## GOALS

Explore what bees need & the challenges bees face.

Practice biology and literacy skills.

Learn about different bee species, pollinator habitats, nutrition, and environmental awareness.

Discuss what kinds of bees are thriving in their school gardens and surrounding area.

Discuss healthy habitats and how that supports health and wellbeing.

## MATERIALS

VIVA ABEJAS BY CHEF RICHARD SANDOVAL BOOK

PAPER & DRAWING SUPPLIES

## PREP

Provide each student with several sheets of drawing paper and drawing materials.

## **TEACHER: READ**

Read chef Richard Sandoval's book, "Viva Abejas!" while students draw.

## **STUDENTS: DRAW**

ASK THE CLASS: Draw a picture of the kinds of food bees need to be healthy

ASK THE CLASS: Draw a picture of kinds of food they like to eat

## **DISCUSSION**

Have students guess which of their chosen foods they have drawn are pollinated by bees.

Lead the students in a conversation about things that are necessary to live, such as food and shelter, and a healthy environment.

Share the challenges that bees face, which include:

Poor nutrition (lack of habitat/flowers)

Pesticides (chemicals that kill bees or contaminate their food)

Pathogens (sickness/illness)

Pests/Predators (things that bother or kill bees)

# WE ARE FAMILY

BEE'S FAVORITE FOODS

MY FAVORITE FOODS

## **WHAT ARE PESTICIDES?**

Pesticides are like superheroes that help keep plants safe from bad bugs and weeds that might hurt them.

They are like shields that farmers use to protect their plants so they can grow big and health but there are pesticides and chemicals that can hurt bees and some that don't hurt them.

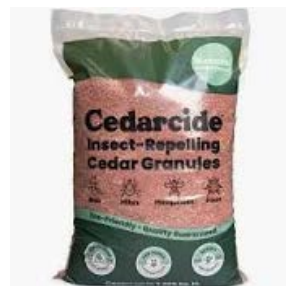
**Can you think of any pesticides?**

# DISCUSSION

## BAD PESTICIDES FOR BEES



## GOOD PESTICIDES FOR BEES



NEEM OIL

CEDAR CHIPS

GARLIC

SOAP



## **WHAT ARE PESTS & PREDATORS?**

A pest is an annoying visitor that bothers plants or people. They can be insects, rodents, or weeds that cause trouble by eating crops, damaging homes, or spreading diseases.

A predator is an animal that hunts and eats other animals.

**Can you think of anything that could eat a bee?**

# DISCUSSION

## BEE PESTS & PREDATORS



**BIRDS**



**SPIDERS**



**HIVE BEETLES**



**BEEWOLVES**



**BEARS**



**HUMANS**

## **WHAT ARE PATHOGENS?**

Pathogens are tiny germs that can make you sick. They're like invisible monsters that can sneak into your body and cause colds or tummy aches

**Have you ever been sick?**

**What does that feel like?**

**Can bees get sick?**

## SICKNESSES FOR HUMANS



EXHAUSTION



RUNNY NOSE



FEVER

## SICKNESSES FOR BEES



BEE LOUSE



NOSEMA



VARRDA MITE

# Helping Bees Helps People



LESSON TWO



## GOALS

Explore the relationship between seeds and how seeds grow food for pollinators and people.

Practice biology and literacy skills.

Discuss healthy habitat, cultural appreciation, positive stewardship, and wellness.

## MATERIALS

WILDFLOWEER SEEDS (regionally appropriate non-gmo, native)

CLAY & SOIL

WATER

BOWLS, CUPS, SPOONS

PAPER TOWELS

## PREP

Provide each student with a paper bowl, a couple paper towels, and either seeds, clay, and soil already pre-mixed or in separate cups for them to mix together like a recipe along with a cup of water/spray bottle of water.

## Here's what you need (makes 8-10 balls):

- 1/2 oz native wildflower seeds.
- 3 1/2 oz dry, organic potting soil
- 1 1/2 oz dry clay (we suggest powdered red pottery clay)
- Water
- A mixing bowl
- A cookie sheet for drying the seed balls
- wax paper



## Here's what to do:

1. Line cookie sheet with wax paper.
2. Mix seeds and potting soil together.
3. Add dry clay and mix again.
4. Slowly add water while still mixing the seeds, potting soil, and water into a well-blended paste.
5. When you are able to form a ball of the blended material without it falling apart, you are ready to stop mixing.
6. Mold the mixture into small (~1 inch diameter) balls and place on cookie sheet or tray with wax paper.
7. Allow balls to dry in the sun for at least one day.



## **DISCUSSION**

Lead the students in a conversation about things that a healthy environment supports. Use examples of biodiversity—bees, flowers, soil, health, clean water, etc. What are their favorite flowers?

What do they like most about Chef Sandoval's Viva Abejas book?

What plans do students have to help support pollinators and their culturally relevant foods?



## LESSON #1

Kids & Bees



## LESSON #2

Seeds



Slow Food



Gardens





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