

```html

# Lesson Plan: Biodiversity Investigators — The Human Connection

## Materials Needed

- Notebook or journal
- Pencils, colored pencils, or markers
- Large sheet of paper or poster board (for the main project)
- Access to the internet (for a short video)
- A magnifying glass (optional, but fun!)
- Access to an outdoor space (backyard, local park, or even a walk around the neighborhood)
- Building materials for an optional 3D model (e.g., LEGOs, recycled cardboard, clay, natural items like twigs and leaves)

---

## Lesson Details

**Subject:** Life Science / Environmental Science

**Grade Level:** 6th Grade (perfect for Cora!)

**Time Allotment:** 90 minutes (can be split into two sessions)

## 1. Learning Objectives

By the end of this lesson, Cora will be able to:

- Define "biodiversity" in her own words.
- Identify at least two positive and two negative ways humans impact biodiversity.
- Design a plan for a local space (e.g., a backyard or park) that creatively supports and increases biodiversity.

## 2. Introduction: The 10-Minute Biodiversity Scavenger Hunt! (15 minutes)

This activity gets Cora moving and observing the world around her right away.

1. **The Mission:** Tell Cora she is a "Biodiversity Investigator." Her first mission is to go outside and find as many different kinds of living things as she can in 10 minutes. This includes plants, insects, birds, and any signs of other animals (like a squirrel's nest or a feather).
2. **Document the Evidence:** In her notebook, have her list or sketch everything she finds. Encourage her to look closely! How many different types of leaves can she find? Are there different kinds of insects under a rock or on a flower? A magnifying glass makes this extra fun.
3. **Quick Debrief:** After 10 minutes, come back inside. Ask Cora: "Were you surprised by how many different things you found? Imagine all the living things in a forest or an ocean. All that variety is what we call **biodiversity**."

### 3. Instruction & Guided Activities (30 minutes)

#### Activity 1: What is Biodiversity? (10 minutes)

Let's put a formal definition to what Cora just observed.

1. Watch a short, engaging video on biodiversity. A great option is "What is biodiversity?" by the California Academy of Sciences on YouTube. It's clear, visual, and kid-friendly.
2. After the video, ask Cora to write her *own* definition of biodiversity in her notebook. It doesn't have to be perfect, just in her own words. (Example: "Biodiversity is the mix of all the different plants, animals, and tiny living things in one area and how they all work together.")

#### Activity 2: The Human Connection T-Chart (20 minutes)

Now we connect biodiversity to our own lives. Humans can have a huge impact, both good and bad.

1. In her notebook, have Cora draw a large "T" chart. Label the left side "Human Actions that HARM Biodiversity ☐" and the right side "Human Actions that HELP Biodiversity ☐".
2. Brainstorm together to fill in the chart. Prompt her with questions if she gets stuck.
  - **For the HARM side:** "What happens when we build a new shopping mall where a forest used to be? (Habitat loss) What about pollution from cars or factories? (Pollution) What happens if we use too much water from a river? (Resource depletion)"
  - **For the HELP side:** "What are some things people do to protect nature? (Creating national parks, conservation programs) What could we do in our own yards to help animals? (Planting native flowers for bees, setting up a bird feeder) What about cleaning up trash at a park? (Reducing pollution)"
3. Aim for at least 3-4 points on each side. This chart will be a great resource for the main project.

### 4. Main Project: Design a Biodiversity-Friendly Space (35 minutes)

This is where Cora gets to be creative and apply everything she's learned. Her mission is to redesign a familiar space to make it a haven for local wildlife.

1. **Choose a Location:** Cora can choose your backyard, a nearby park, or even her school's playground.
2. **The Goal:** Using the large paper or poster board, she will draw a map or a "blueprint" of her redesigned space. Her goal is to add features that will attract and support a wide variety of plants and animals.
3. **Brainstorming Ideas (Encourage creativity!):**
  - A "pollinator garden" with native flowers for bees and butterflies.
  - A small pond or bird bath to provide a water source.
  - A log pile or rock pile to create shelter for insects and small animals.
  - Planting fruit trees or berry bushes that provide food for birds.
  - Creating a "no-mow" zone to let wild grasses and flowers grow.
  - Building a compost bin to recycle food scraps and create healthy soil.
4. **Create the Blueprint:** Have her draw the space and label each new feature she adds. Next to each label, she should write a short sentence explaining *how* it helps biodiversity. (e.g., "Bird Bath: Provides clean drinking and bathing water for birds.")

### 5. Assessment & Wrap-Up (10 minutes)

This isn't a test, but a chance for Cora to share her amazing work and solidify her learning.

1. **Project Presentation:** Ask Cora to present her "Biodiversity-Friendly Space" blueprint. Have her explain why she chose to include certain features and what kind of wildlife she hopes to attract.
2. **Discussion Questions:**
  - "After doing this project, what is one small thing our family could do to help biodiversity in our own yard or neighborhood?"
  - "Why do you think it's important for humans to protect biodiversity?"
  - "What was the most interesting thing you learned today?"

## 6. Extension & Differentiation

If Cora is excited and wants to go further:

- **Build a Model:** Have her build a 3D model of her design using LEGOs, clay, or recycled materials.
- **Research a Specialist:** Ask her to research an animal that is a "specialist," meaning it relies on a very specific habitat or food source (like a Koala or a Monarch butterfly). How does human activity affect that animal?
- **Take Action:** Help her implement one of her ideas! Plant a small pot of native flowers, build a simple bug hotel, or set up a bird feeder. Taking real action is the most powerful lesson of all.

...