ZOOM IN, ZOOM OUT

Join us as we look for biodiversity in our own backyard. We are going to take a closer look at the earth around us in our neighborhood.

Big Idea
Kids will discover a vast array of biodiversity at arm's reach using quadrat sampling and magnification.

Standards

IELDS 12.A.ECa Observe, investigate, describe, and categorize living things.	Students will observe, investigate, describe, and categorize living things within the hula hoop.
CCSS.ELA-LITERACY.RI.K.10 Actively engage in group reading activities with purpose and understanding.	Students will listen to the story and answer questions during the group reading of Life in a Backyard.
NGSS 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.	Students will make observations of plants and animals in multiple locations and compare their diversity.

Materials
- Book: Life in a Backyard – Jen Green
- Hula hoops
- Milk rings
- String
- Magnifying lens
- Microscope
- Binoculars
- Tree key/Insect & Bird guides
- Paper for nature journals
- Clipboards
- Pencil

Setup
Place Hula Hoops in three different areas on the ground outside (try to pick areas with slightly different biodiversity, if possible). Put tools and guides around each hoop. Put milk rings off to the side.

Directions
1. Read the story Life in a Backyard. Explain that you will be looking at the yard around your school or home.
2. Invite students to start at a hula hoop (there can be a group of students around one hoop) and use the tools and materials to investigate what they see by zooming in up close.
3. As students finish looking up close, hold up a milk ring and demonstrate zoom out to look at items in the distance.

4. Encourage students to compare and contrast what they see up close and far away, and to look at different locations up close and far away.

Investigation Questions: What do you see? What signs of life can we find? What things are the same within the hula hoop? What things are different? What do we have the most of in the hula hoop? How did zooming out look different from zooming in? Why might scientists study things closely or from a distance? How do you think the ground over there will be different or the same from what we found here? What things can you find from a distance over there?