

# BIODIVERSITY PEEK

INQUIRY BASED STEAM LEARNING THAT LEAVES NO CHILD INSIDE

The *Biodiversity P.E.E.K.* (Photography Engaging and Empowering Kids) preK–8 curriculum resource is:

- STEM + Art = STEAM
- focused on the science standards of your classroom
- fun enough to be used as an after school enrichment program
- flexible to fit with the specific needs and opportunities of your site

**Grades 3 – 5 *Biodiversity PEEK*** students spend time outside observing and wondering about the plants and animals there. *Biodiversity PEEK* kids do real, meaningful citizen-science using digital photography and an online database to document the biodiversity they observe. Students' natural curiosity about how photography works is also be piqued as they create art such as solar-prints, re-invent photography by designing, building and tinkering with a camera-obscure, and construct a model to gain a hands-on understanding of how light functions in photography and vision.



Through a guided nature journal students develop their own questions, investigate/research some of these questions, reach conclusions based on evidence, and share their findings about:

- **What physical traits effect a plant or animal's survival, growth, and reproduction in their environment?**
- **What behavioral traits effect an animal's survival, growth, and reproduction in their environment?**
- **How does matter cycle through their ecosystem, and how do plants and animals get the matter they need to live?**

Finally, using their own data and conclusions, students work collaboratively to problem solve ways to improve and/or protect the native biodiversity near school and develop, implement, and assess an action plan. The *Biodiversity PEEK* curriculum culminates in a STEAM exhibition for the community featuring the students' best nature drawings, photography and writing.

*Biodiversity PEEK* lessons are interdisciplinary, with a focus on reading and writing, engineering, math, art, and design. Brief assessments are built in to check students' knowledge of key

concepts, and a cumulative portfolio assessment gives students the opportunity to select and share the best examples of their learning processes and products.

