This guide is designed for afterschool and out-of-school settings, such as enrichment programs and camps, but the activities included will work almost anywhere.

Learners will build an explorer mindset through creative sketching that incorporates careful listening and observation. Keeping an explorer journal with notes and sketches, ideas, and reflections can deepen our connection with art, science, and the natural environment. In this activity, learners pay close attention to step-by-step, detailed descriptions of a mystery animal and draw what they envision. Learners then closely observe a plant, animal, or other organism—or a photo of one—and sketch it. They compare the difference in these two experiences and build skills in art and listening.

Tag drawings and photos with #NatGeoBioBlitz and inspire others to explore outdoors.

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**ACTIVITY:**
**NATURE SKETCHING**

30-45 minutes, all ages
Indoors or outdoors. Virtually or in person

**PREPARATION:**
For Step 1, choose several animal images from PhotoArk to print or share on a computer/tablet screen. Determine if you will go outdoors for Step 2. If yes, scout for potential risks, plan boundaries, and look for examples of organisms to sketch. If using an indoor space, gather items such as leaves, indoor plants, and other natural objects that students can observe and sketch.

**OBJECTIVE:**
Develop and practice the explorer mindset skills of observation and collaboration while visualizing and sketching shapes, forms, and colors of objects in nature.

**TOOLS:**
Photos of animals, printed or on a screen; printed journal pages or a notebook/sketchbook or printed “Nature Sketching” worksheet; pencils and other assorted art supplies (colored pencils, watercolors, markers, pastels, etc.)
STEP 1: SPARK ATTENTION TO DETAILS
Give learners an opportunity to listen to or read descriptions of an animal you’ve chosen from Photo Ark. When everyone has paper and pencil ready for drawing, keep the photo and the animal’s identity secret. You should carefully, slowly—and with a sense of humor!—describe step-by-step the shape of the animal. Do not name any defining features (arms, head, etc.), but describe the animal with as much detail as possible. Move around to observe what your artists are doing and repeat parts of the description as needed. Use terms like horizontal, vertical, curved, straight, upwards, downwards, dark, light, etc. You can also refer to the sides and corners of the page. For example, you could say “Go to the top middle of the page. Start drawing toward the right. Draw a straight line that curves downward near to the top right corner.”

Encourage them to do their best and have fun. Remind them that the goal is for them to listen and visualize, and that it’s okay if the drawings come out looking silly!

To continue sparking the learners’ attention to details, reveal the photo you’ve chosen. Then ask everyone to share their drawings with each other. Lead a discussion about how their drawings compare with the photo by asking questions such as: Which descriptions were most helpful? Which details were hard to understand and draw? Did anyone guess the animal from the description?

SKILLS FROM THE NATIONAL GEOGRAPHIC LEARNING FRAMEWORK:
• Explorers observe and document the world around them, and they can make sense of those observations.
• Explorers communicate experiences and ideas effectively through language, movement, and media.
• Explorers collaborate with others to achieve goals.
Making careful observations and communicating to others are important skills of an explorer! To practice further, you can repeat the experiment with different animals and with one learner describing the image to the whole group, or split the group into pairs and having them practice with each other. You, the instructor, can participate too! Share again some of the successes and challenges of both trying to describe and trying to draw.

STEP 2: EXPLORE TECHNIQUES FOR SKETCHING
Give learners an opportunity to sketch an animal or plant of their choice, either from a photo in Step 1, one of the natural items you gathered to use in the classroom, or outdoors in a place with trees and plants. With journals/sketchbooks and pencils, as well as other art supplies like markers or colored pencils, give learners an opportunity to draw, paying close attention to the details of their subject.

Sketching techniques to try:
- Have everyone choose a different animal, plant, or other organism to draw and color.
- Allow tracing; they can place a leaf or other item on their paper to draw around and then add details.
- Suggest that they first draw lightly the shapes of an object, and then they can fill in details, shading, color, etc.
- Have them add notes to the page, such as descriptions of the weather, behaviors, measurements, the day and date, time of day, etc.
- Model the process of sketching by drawing with them! using the same or new poses.

STEP 3: SHARE
Provide space for students, who are willing, to display their sketches and stories. Facilitate a “gallery walk” where the group can observe, celebrate and ask questions on sticky notes. If facilitating this activity virtually, organize a virtual gallery walk in Jamboard or another virtual workspace.
EXTENSIONS:

Create a journaling routine: incorporate sketching into weekly activities to give learners the opportunity to build their explorer mindset and drawing skills. Consider creating a natural space to observe, such as a window box, bird feeders, or a garden.

After sketching without seeing the animal, give your artists ten minutes to sketch the animal again, this time looking at the photo. Talk about how it felt to be able to look closely at the details this time. Ask: Which process did you like better?

Take sketching further with “scientific drawing,” even if you or your learners do not consider yourselves good at drawing. See resources below for more ideas for incorporating sketching into learning about nature and the environment.

For younger learners: choose animals with fairly simple shapes to describe, such as a snake, bunny, ladybug, or butterfly.

RESOURCES:

- Fantastic free resources for educators and others to learn nature journaling skills. Includes a PDF of the book How to Teach Nature Journaling.
- An Introduction to Scientific Sketching lesson plan from the California Academy of Sciences, including making drawings Accurate, Big, Colorful, Detailed, Explained (ABCDE).
- National Geographic’s BioBlitz after school guide, videos, activities, data sheets and more: natgeoed.org/bioblitz
NATURE SKETCHING

Find a nature object like a plant, animal, or fungus, and sketch it in the box. Include color, details, surroundings, labels, or notes for what you observed.