

Buzzing with Curiosity

STEAM KIT FOR CLASSROOMS

YOU CAN BE AN OBSERVER OF NATURE!

What is in your kit? magnifying glasses, field guide, paper leaf cutouts, stick-on eyes, twist ties

Additional supplies to have on hand: pencils or pens (for field guide notes), drawing utensils (for insect embellishments), scissors or glue if needed (but not required)

Classroom needs: outdoor space for exploring the natural world (if possible), bins or table space for the distribution of materials, area for hands-on making activity

A KIT FOR DISCOVERING AND BUILDING INSECTS

Part 1: The Book

Read *Buzzing with Questions: The Inquisitive Mind of Charles Henry Turner*, a book that ponders how insects see and process the world.

You will need: the book (*Buzzing with Questions: The Inquisitive Mind of Charles Henry Turner*)

Ideas for further research:

Discuss how insects see the world and search for online sources that simulate insect vision. For insect identification and research, visit bugguide.net.

What different kinds of insects exist in the world?
What insects do you see around you?

This activity pairs with *Buzzing with Questions: The Inquisitive Mind of Charles Henry Turner* by Janice N. Harrington. Prep by becoming familiar with the book and this lesson. Tips for a successful lesson include setting aside reading time and introducing the magnifying glass and field guide. Consider observing patterns in nature like the geometry of spider webs and finding similarities among insects.

Part 2: Bug Walk

Take a Bug Walk to seek out insects. Insects may be observed on the ground or in the air. Take note of any patterns you may observe. Pause to write down your observations or to draw what you see.

You will need these items from the kit: magnifying glass, field guide, your own pencil or pen

Lesson ideas:

- Ahead of the walk, consider asking students to select one of the insects observed in the text and to attempt to look at the world from that insect's point of view.
- Consider collecting fallen leaves on the walk to examine.

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Part 3: Build an Insect

You will need these items from the kit: *paper leaf cutouts, stick-on eyes, twist ties*

Optional: *drawing utensils* (for insect embellishments)

1. Select a cutout leaf as the insect's body.
2. For winged insects, fold the paper in half longwise (like a taco) with the colored side of the paper on the inside. With the color still inside, fold part of each side down to create wings, so that the color peeks out (think paper airplane). Each leaf shape will make a different winged insect. Students may experiment with form before folding.
3. If desired, embellish by drawing (patterns, dots, etc.)
4. Attach stick-on eyes.
5. For the insect's antennae, insert the twist tie through the pre-cut hole in the leaf cutout. Once guided through, fold and twist carefully at the base so as not to rip to paper, and curl if desired.

Part 3 Continued

6. What questions do you have for your insect? Consider how this insect might experience the world.

Although all insects have 6 legs and 2 antennae, students may represent insects in various ways.

You, too, have an inquisitive mind! Continue to ask questions and seek answers in your environment, just like Charles Henry Turner!

NGSS Standards that fit with these STEAM activities:

K-ESS3-1, 1-LS3-1, 2-LS4-1, 3-LS1-1, 4-ESS1-1, 5-PS1-3

CA Arts Standards for Creating and Connecting:

PK.MA:Cr2, K.MA:Cr2, 1.TH:Cr, CCSS.2.VA:Cr1.2, VA:Cr2.1.3a, CCSS.5.VA:Cr1.1

ELA Standards:

CCSS.RL.K.4, CCSS.RL.1.2, CCSS.2.SL.2, CCSS.RL.3.1, CCSS.RI.5.2



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