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# Learning at Home With Bugs

ENTOMOLOGY TODAY 4 WEEKS AGO LEAVE A COMMENT



With children home from school in many locations due to public health concerns, the ESA Education and Outreach Committee collaborated to assemble a list of handy insect-related activities for parents to keep their children active and learning. (Photo via Flickr/[Insects Unlocked](#), public domain)

**By Gwen Pearson, Ph.D.**

Right now many of us are at home with kids, and school is canceled for at least the next month. The [ESA Education and Outreach Committee](https://www.entsoc.org/about/committees-) (<https://www.entsoc.org/about/committees->

[boards/committees](#)) helped me put together a list of some of our favorite insect activities that don't require lots of supplies. Please share with friends and neighbors!

Right now the biggest challenge is to try to keep children busy and occupied, without making their lives more stressful. Kids know that something *big* is happening, and they're hearing adults talk about not being able to get food or supplies, and they're not allowed to see their favorite friends and teachers in person.

My first piece of advice is to make sure your expectations for learning right now are appropriately low. Kids need to feel safe and secure before they can learn. Right now you probably aren't in the right headspace to suddenly master violin playing, and your kids aren't up to an elaborate science project.

Good news: There is a fair amount of [research](#)

(<https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00593/full>)

that shows unstructured play helps develop learning skills and facilitates learning. Even if all that happens is your kids do some coloring, or turn over a few rocks, they are learning. We also know that

positive [emotions](#) (<https://www.frontiersin.org/articles/10.3389/fpsyg.2017.01454/full>) can positively affect learning—so [unstructured, exploratory fun](#) (<https://www.pbs.org/parents/thrive/summertime-solutions-the-benefits-of-unstructured-play>) strengthens kids' self-management, confidence, and willingness to ask questions and look for answers.



My second piece of advice is to just go with the flow. If things spiral off on a weird tangent and no one is following the lesson plan, just go with it. If the kids are happy and engaged, you're doing it right. Joyful chaos is not a bad thing. This also lets kids make the decisions and have control over the activity. The ability to feel a sense of control is in short supply right now.

Everything goes wrong? Nothing works? Messing up, laughing at our mistakes, and admitting we don't know something are all great behaviors to model for our children.

Kids are full of questions by nature, and so my third and last piece of advice is to resist the temptation to quickly provide answers. Use some of the prompts below to gently guide a child to think more deeply:

- What do you see?
- What do you think it is?
- Why do you think that's happening?
- What does that make you wonder about?

Asking what a child *already* knows, and then what they *want* to know about an insect (or anything) can help you focus the millions of questions that flow out of a child into a more

specific, answerable question you can work on together.

## Our Favorite Things

One important caveat: This list omits a lot of amazing resources. One of the key criteria for inclusion was that a resource didn't require purchasing lots of unusual supplies or equipment. Right now isn't a great time to go shopping at the craft store, but, with internet access, crayons, pencils, and some household items, you should be able to do all of these activities. These are also ideas I feel like non-entomologists can pick up and run with. I grouped them into 4 categories:

**Print and Make (#Print)**

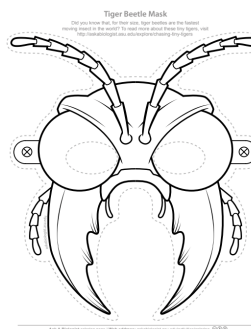
**Activities to Do Together (#experiment)**

**Community Science with Your Phone (#phone)**

**Watch and Do Online (#watch)**

## Print and Make

- [Invent an Insect](#)
- [Using Art to Learn Insect Anatomy](#)
- [Spiderpalooza coloring book](#)
- [Coloring book with puzzles](#)
- [Coloring Pages](#): masks, ants, anatomy, and more
- [Insect Origami](#)
- [Augmented Reality Weevil Coloring](#)



## Activities to Do Together

- [Nature Play](#)
- [Insect Pit Stops \(4-H\)](#)
- [Crickets and Chirps \(4-H\)](#)
- [Setting up guest quarters for visiting arthropods](#)
- [Ant-Vasion!](#) Two different experiments to set up with household spices to see if you can repel ants:
  - [Indoors](#)
  - [Outdoors](#)
- [Build a tumble trap](#)
- [Insect Escape Room](#)
- [Make an Insect Collection!](#) These instructions include how to make a photography collection, rather than the traditional pinned kind. Check out "Kentucky 4-H Entomology Unit Books" to download parent guides.

## Community Science With Your Phone

If you haven't downloaded and installed [iNaturalist](https://www.inaturalist.org/pages/getting+started) (<https://www.inaturalist.org/pages/getting+started>) on your phone, now is a great time! iNaturalist lets you photograph, identify, and document what's around you with a digital collection. You can choose to share your observations with scientists and help build our understanding of the natural world.

# iNaturalist



iNaturalist has an impressive artificial intelligence that does a good job of helping you identify animals you find. If you choose to share your data for scientific use, a community of experts will confirm your identification. (A caveat: The time frame for confirmation can vary from a day to months, depending on the organism.)

You don't even have to go outside to use iNaturalist—there are lots of animals inside your house. Go on an indoor safari with the [Never Home Alone project](https://www.inaturalist.org/projects/never-home-alone-the-wild-life-of-homes) (<https://www.inaturalist.org/projects/never-home-alone-the-wild-life-of-homes>). There's even a [downloadable ebook](http://robdunnlab.com/wp-content/uploads/Final_AOHGuide.pdf) ([http://robdunnlab.com/wp-content/uploads/Final\\_AOHGuide.pdf](http://robdunnlab.com/wp-content/uploads/Final_AOHGuide.pdf)) to help you identify the animals you find.

You must be over 13 to have an iNaturalist account; but you can definitely set up an account and hand your phone over to the smaller members of your household while supervising them.

There is a companion app specially designed for kids called [Seek](https://www.inaturalist.org/pages/seek_app) ([https://www.inaturalist.org/pages/seek\\_app](https://www.inaturalist.org/pages/seek_app)). It's basically Pokemon with real animals; you earn badges as you explore your neighborhood! Seek doesn't require a login, and has less data sharing than iNaturalist and has no age restrictions, in case you have privacy concerns.



## Seek by iNaturalist

from [iNaturalist](#)

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## Watch and Do Online

- [Online Beetle Dissection](#): In addition to a cool online interactive, there is an [entire booklet](#) to download, including coloring pages.

- [Fireflies!](#) An online simulation
- [A YouTube playlist about bugs and their relatives](#)
- [The Book of Insect Records](#): What are the biggest, loudest, and longest bugs?
- You can take an [entire college entomology class online](#) for free!
- [An entire eBook of outdoor bug activities](#) for parents to mine for ideas

We know there's lots of resources out there we've missed. What's your favorite?

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