



4-H Cloverbuds and Service

Citizen Science – Learning About Nature and Gathering Data

WHAT'S IT ALL ABOUT?

Service involves looking outside yourself and helping or doing work for your community or individuals within the community.

- Serving the community, the individuals receive benefits because they are a member of the community.
- Serving others also benefits the 4-H member by building life skills that may include:
Responsible Citizenship, Teamwork, Character, Concern for Others, Communication, Goal Setting, Problem Solving and many more.

Before Project

- Talk to youth about the need for citizen science.

During Project

- Pick one of the projects listed below
- Go outside and observe nature and record what you find
- Enter those observations into an online database

After Project

- Celebrate what you found
- Reflect on if you want to do this project again

FOCUS ON THE SERVICE

- What do we know about the world around us? How do scientists know if numbers of a particular plant or animal are increasing or decreasing? It may sound simple, but scientists count plants and animals, and they need help.
- Citizen Science is a way that people across Michigan and the world can collect information and share it with scientists.
- Participants, by finding species and identifying them can help scientists understand how healthy populations of certain animals are, and if they are moving across the state. This information can also help decision makers make better decision on how to protect wildlife.

EMPOWERING CLOVERBUDS

- Cloverbuds can participate in community service as much as any other 4-H member. Lessons may need to be adapted for developmental appropriateness, but they can achieve the benefits of service regardless of age.

CURRICULA & RESOURCES

Other Resources

- <https://scistarter.com/citizenscience.html>
- <https://www.citizenscience.gov/>
- <https://www.citizenscience.org/>



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Service Continued...

Here are some Citizen Science Projects to participate in

1. Midwest Invasive Species Network - <https://www.misin.msu.edu/> - While many species citizen scientists get involved with are for the protection of species, some species can cause problems, by destroying wildlife and habitat, damaging crops, or having negative impacts on human health. The Midwest Invasive Species Network is a mobile phone application and website to track invasive species across Michigan.
2. iNaturalist - <https://www.inaturalist.org> - iNaturalist is a mobile phone application and website to identify and track all species across world. If you have trouble identifying something, you can take a picture and experts will help you figure out what you found.
3. Bioblitz - <https://www.inaturalist.org/pages/bioblitz%2Bguide> - A bioblitz is trying to identify as many species as possible in a set frame of time as possible, and enter them into iNaturalist. For example, you could try to identify as many different species in your schoolyard as possible in one week.
4. Michigan Herp Atlas - <https://www.miherpatlas.org/> - The Michigan Herp Atlas is a mobile phone application and website to track reptiles and amphibians across Michigan.
5. Michigan Frog and Toad Survey - https://www.michigan.gov/dnr/0,4570,7-350-79135_79218_79616_83198---,00.html - This involves going out to several sites in the spring and listening for frogs and toads singing. Because some frogs and toads are difficult to spot, this can be more helpful than actually seeing them. Participants get an audio file and learn what different frog songs sound like.
6. Nestwatch <https://nestwatch.org> and Feederwatch - <https://feederwatch.org/> - Work with Cornell's Lab of Ornithology and identify what is happening at bird feeders or nests right outside your window. This can be done in classrooms, at parks, or at home. Sign up online, determine your procedure, and enter your observations.
7. Michigan Clean Water Corps - <https://data.micorps.net/searchresults.php> - There are groups across Michigan using volunteers to collect water quality data on our lakes and streams. You can reach out to a group in your area to get involved.

Reflections and Celebration

After all the hard work of finding critters and plants, it is important to have a celebration as a reward. Did you find any new species that hadn't been reported in the area? Did anyone find something they hadn't seen before? Did anyone learn how to identify a plant or animal?

After your data collection discuss with the group if this is something you want to repeat this activity in the future. How might it help scientists if you repeat a similar activity in another year?

