



Environmental and Earth Sciences

4-H Environment

North Dakota 4-H Project Sheet

Do you want to make Earth a better place to live?

- Understand the connection between living and nonliving things.
- Learn about the energy cycle and renewable and nonrenewable energy.
- Understand the importance of food, water, shelter and space for all living things.
- Learn how to be a good environmental steward by recycling, conserving and preserving.



Pass it on!

Now that you know how, share it with others. Here are ideas to get you started.

Communication

- Create a “Trees of North Dakota” poster.
- Demonstrate how to collect and mount insects, leaves, plants, etc.
- Create a blog about an environmental issue.
- Create a video on how to weatherize your home.

Citizenship

- Help out at your local park.
- Write a letter to the editor about a conservation or environmental issue that concerns you.
- Create a sustainability team to reduce nonrecyclable products.

Leadership

- Clean up a local pond or lake to help the local fish environment.
- Plan and conduct an “energy fair,” teaching younger kids about wind, solar, biomass and coal energy.
- Organize an environmental club in your community.

Entrepreneurship

- Research how to start a honey and pollination business.

Here’s what you can do all year!

Starting Out Basic/Level 1	Learning More Intermediate/Level 2	Expanding Horizons Advanced/Level 3
<ul style="list-style-type: none"> • Choose an environmental focus (birds, entomology, forestry, etc.). • Observe life cycles of insects. • Learn about energy cycles. • Create a collection (leaves, seeds, insects, plants). • Learn the proper way to mount your collection and identify what you found. • Shadow or interview a local environmentalist. • Find out about renewable and nonrenewable energy sources. 	<ul style="list-style-type: none"> • Learn about different tree species and animals on your vacation. Record the location, name of species and type of climate. • Learn about tree diseases. • Conduct experiments. • Study an environmental issue (acid rain, global climate change, soil erosion). • Compare the costs and benefits of renewable energy sources. • Learn how to set up an apiary. 	<ul style="list-style-type: none"> • Conduct a forestry quiz bowl for your community. • Organize a community service learning project to weatherize homes of needy families. • Monitor water quality in your community. • Investigate the potential of various energy sources to power homes. • Interview a forester, entomologist or botanist. • Enter a research project in a science or technology fair.

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Learn more at www.ndsu.edu/4h/ or contact your county NDSU Extension office.



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Here are other opportunities to explore the environment project:

- Contact your county NDSU Extension office for local workshops, activities and events.
- Volunteer in North Dakota parks (www.parkrec.nd.gov/information/parks/volunteering.html#vip)
- Meet others interested in the environment. Check out camps at the North Dakota 4-H Camp (www.ndsu.edu/4h/camp).
- Consider taking an exhibit or piece of your project learning to the fair or achievement days for judging and to show off what you have learned. It might get selected to go to the North Dakota State Fair.
- Attend the Extension Youth Conference and participate in workshops, motivational speakers and a community service project, then bring ideas back to your community.
- Interested in a college education in the area of biological sciences, environment, education, engineering, design and technology, physical sciences, premedical and health sciences, social sciences, agriculture and life sciences, or humanities? Schedule a visit with [North Dakota State University](http://www.ndsu.edu) to explore those majors.



Exhibit Ideas

- Develop a presentation or working exhibit that shows how to make a solar oven.
- Do a presentation on how to do a home energy audit.
- Can you identify local trees? Make a poster to help others learn.
- What attracts butterflies to your garden? Find out and share your findings in a video.
- How has North Dakota's wildlife changed through the years?
- Create a survey on what other youth think and feel about today's environmental issues. Tweet your friends and keep a tally. Report through a poster, video, etc.
- Create a video on the pros and cons of sun, wind, nuclear and coal power.
- Develop a workshop that shows others how to be good environmental stewards.
- Create a new recipe. Write and illustrate a cookbook about catching and cooking fish.
- Create artwork using natural objects. Explain how the objects are connected.
- Develop a display or notebook on forest diseases.

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4-H Resources

- National Curriculum
 - [Butterfly WINGS](#)
 - [Exploring Your Environment](#)
 - [Forestry](#)
 - [Insects \(Entomology\)](#)
- N.D. Curriculum (available from local Extension offices)
 - Nature Trails 1-3
 - [Nature Trails I](#) (available online)
 - Wildlife
- [Educational Trunks](#) (check out by contacting local Extension office)
- [Attend ND 4-H Camp](#)

Other Resources

- [Butterfly Gardening in North Dakota](#)
- Amateur Entomologists' Society www.amentsoc.org
- [How to Make an Awesome Insect Collection](#)
- National Park Service www.nps.gov/index.htm
- [Walk on the Wild Side: Explore Your Public Lands](#)
- [Windows to the Universe: Climate and Global Change](#)
- [Ecological Footprint Quiz](#)
- [Forests of Fun Online](#)

Recordkeeping

- [4-H Project Plan](#) (PA095)
- [Planning for my Project Adventure](#) (PA093) (Ages 8-10)
- [4-H Plan of Action](#) (PA096) (Ages 11-18)

Contests

- [Earth Day Patch Contest](#)
- [State 4-H Land Judging](#)
- [State 4-H Range Judging](#)

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