



Project Orchid: Student Scientists Conserving Minnesota Native Plants

The Plant Conservation Program at the Minnesota Landscape Arboretum works to conserve regional rare plants and native orchids. The mission is to protect these plants through both applied research and public education. [MN Orchid conservation video](#). Now student scientists can participate in this important conservation work through Project Orchid.

What is Project Orchid?

Project Orchid is a research partnership between the Arboretum Plant Conservation Program and participating partner schools. The program brings authentic, conservation plant-science research into classrooms where students study how orchid seedlings grow and survive under different conditions. The ultimate goal of the project is to improve the understanding of orchid biology in order to conserve Minnesota's wild orchid populations and to apply this knowledge to active conservation work. Project Orchid will connect with similar orchid classroom projects underway nationally and internationally in partnership with the Smithsonian Institution (SERC), North American Orchid Conservation Center (NAOC), and Fairchild Tropical Botanical Garden.

Project Orchid Goals:

- Improve the scientific understanding of MN native orchids through authentic research in the classroom.
- Spark interest in the conservation of Minnesota's native plants and the biomes in which they live.
- Connect Minnesota student scientists with other classrooms participating in orchid research programs locally, regionally, nationally, and internationally.

Become a Project Orchid Participating Partner School in 2020-21:

1. **Learn more about Project Orchid:** Review the Project Orchid [Participating Partner School Agreement](#) and Project Orchid [Science Standard Alignment](#). Find more information and contact information at the Project Orchid [website](#).
2. **Think/discuss how Project Orchid could enhance science study at your school.**
3. **Identify a "Lead Teacher" and "Responsible Administrator" to represent the school in partnership.**
4. **Apply to become a Participating Partner School by May 1st, 2020**
5. **Upon selection, meet and finalize [Participating Partner School Agreement](#).**

Project Orchid Timeline for 2020-21 school year

By May 1, 2020	Partner School Applications Due
May 2020	Partner Schools Chosen and Notified
May-June 2020	Initial Partner Meeting held, Partnership Agreement Signed
August 2020	Teacher Workshop held at the Arboretum (1 day TBD)
School Year 2020-21	<ul style="list-style-type: none"> • Orchids and materials delivered research project setup and begin • Ongoing data collection, recording, and project maintenance, consultation with conservation scientist and project coordinator. • Make use of complementary curriculum resources.
April 2021	Data analysis and communicating results/next steps
May 2021	<ul style="list-style-type: none"> • Culminating experience option to plant out research orchids • Participate in research sharing event

[Current Minnesota State Science Standard Alignment:](#)

Follow the above link to see details of how the project along with the complementary curriculum resources align with current Minnesota State Science Standards Grades 7-12.

New Minnesota State Science Standard Alignment:

As a case study, the Project Orchid research project aligns with each of the four strands of the new state science standards.

Strand 1: Exploring phenomena or engineering problems.

Strand 2: Looking at data and empirical evidence to understand phenomena or solve problems.

Strand 3: Developing possible explanations of phenomena or designing solutions to problems.

Strand 4: Communicating reasons, arguments and ideas to others.



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