



**Career & Technical Education
(CTE) Impact Funding
Application Form 25-26
Deadline October 28, 2025
12:00 Noon**



To be considered complete, applicants must address each component within the application. Applicants may submit up to two additional documents/attachments as supplemental information. Funds should not supplant existing CTE programs, courses, experiences, or previously funded projects. **Grants are limited to \$5,000. Career & Technical Student Organizations (CTSO) programs like Robotics, BPA, and DECA are limited to a one-time \$5,000 startup grant for new programs in your school district.**

To be eligible for this grant funding:

- Applicants must have a current CTE Endorsement or CTE Out of Field Permission.
- The grant must fund and amplify a new or enhanced CTE course or program.

EMAIL COMPLETED APPLICATIONS TO JOHN ENGELKING: JENGELKING@NESC MN.NET

Basic Project Information

Name of proposed CTE project: Freeze Dryer Program	
Primary Project Contact Name/Email/Phone: 218-360-5282	
Name of the Instructor: Spencer Potter Area of CTE License or Endorsement: Agriculture CTE license MDE License File Number: 1024063	
Primary Project School: Greenway High School ISD 316	
Primary Partners (Other schools, businesses, organizations, etc.) Business classes	
If you are a district/charter school applicant, enter the organization number:	ISD 316
Proposed Project Start Date:	9/2/2026
Total Requested Funding Amount:	\$4,995
Projected number of students to be served by June 30th, 2026:	150
Project Grade Level(s):	9-12

Project Focus

Which of the following does your project accomplish? **Select all that apply. Projects MUST address at least one.**

- ☐ Develop career pathways
- ☐ Develop new CTE programs tied to regional industries/economy
- ☐ Equip students with technical/workplace skills
- ☐ Improve access to CTE programs by developing public/private partnerships and increasing postsecondary options
- ☐ Increase family/student awareness of CTE
- ☐ Provide industry-level equipment/technologies supporting skills development

Career Fields

Which of the following career fields does this project address/align with? **Select all that apply.**

- ☐ Agriculture, Food, & Natural Resources
- ☐ Arts, Communications, & Information Systems
- ☐ Business, Management, & Administration
- ☐ Engineering, Manufacturing, & Technology
- ☐ Health Science Technology
- ☐ Human Services

Project Overview/Outcomes

<i>Describe the proposed CTE project, including key activities, goals, and intended outcomes/student impact.</i>	Describe the proposed CTE project The proposed project will fund the purchase of a freeze dryer to enhance hands-on, career-focused learning in both the Agricultural Science and Business programs. This shared equipment will serve as a bridge between two Career and Technical Education (CTE) pathways, allowing students to explore the full cycle of agricultural production — from processing and preservation to marketing and sales. In the Agricultural Science classroom, students will investigate the science behind freeze-drying, studying how the process affects the nutritional value, texture, and shelf life of various foods. In the Business and business classes, students will apply their marketing, entrepreneurship, and sales skills by developing promotional strategies and selling the freeze-dried products through the school store. By integrating food science with real-world business applications, this project creates an authentic learning experience that helps students understand how agricultural products move from the
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farm to the consumer while fostering collaboration, creativity, and career readiness across disciplines.

Key Activities

Students in Agricultural Science classes will:

- Learn about the freeze-drying process and its impact on food quality and preservation.
- Students will learn and strictly follow proper food safety protocols while preparing products in a fully equipped food lab.
- Conduct experiments and labs on food processing, nutritional value, and product development.

Students in Business and Ag Sales classes will:

- Develop marketing plans and product branding for the freeze-dried foods created by ag students.
- Manage sales and customer service through the Radar retail school store, applying principles of entrepreneurship
- Collaborative activities will include:
Cross-department projects where ag students produce the items and business students market and sell them.
- Community outreach and promotion, such as selling student-made products at school events or local functions.

Goals

- Strengthen cross-curricular collaboration between Agriculture and Business CTE programs.
- Provide students with real-world, project-based learning experiences in food science, processing, and marketing.
- Increase student understanding of the farm-to-market process and the economic value of agricultural products.
- Develop career-ready skills in teamwork, critical thinking, and problem-solving.

	<p>Intended outcomes/student impact</p> <p>The intended outcomes of this project center on increasing student engagement, skill development, and career readiness through authentic, hands-on learning experiences. By working directly with the freeze dryer, students will gain a deeper understanding of modern food preservation methods and the science behind maintaining nutritional quality. They will apply classroom concepts in practical ways — from processing and packaging products to marketing and selling them through the school store. This process allows students to experience the complete farm-to-market cycle, strengthening their understanding of both the agricultural and business sides of the food industry. In addition, students will develop valuable employability skills such as teamwork, communication, problem-solving, and entrepreneurship. The project will encourage cross-curricular collaboration and give students a sense of ownership and pride in creating products that benefit their school community, ultimately preparing them for future careers in agriculture, food science, and agribusiness.</p>
<p><i>Describe how you will measure these outcomes. Include how your project will accomplish one or more of the requirements and any encouraged priorities (see grant guidelines, page 2 in red).</i></p>	<p>The outcomes of this project will be measured through both quantitative and qualitative indicators to ensure it equips students with career and college readiness skills, supports robust CTE experiences, and aligns with MSC priorities.</p> <p>Measurement Strategies:</p> <ul style="list-style-type: none"> ● Student engagement and skill development: Track the number of students participating in freeze-drying labs, product development, and school store sales. Pre- and post-surveys will measure student confidence and understanding of food processing, nutrition science, and marketing skills. ● Application of technical/workplace skills: Evaluate student-created products, marketing materials, and sales performance in the school store to assess mastery of hands-on technical skills and business competencies. Rubrics will be used to assess technical accuracy, creativity, and presentation.

- Cross-curricular collaboration: Monitor participation and collaborative outcomes between Agriculture Science and Business students, including documentation of joint projects, shared planning, and reflections on teamwork.
- Career awareness and pathway exploration: Collect student reflections and surveys to measure exposure to potential careers in agriculture, food science, and agribusiness, documenting changes in students' understanding of career options and interest in pursuing related pathways.
- Community and industry engagement: Track partnerships with local businesses or community stakeholders (e.g., sourcing ingredients, marketing support, or mentorship) to demonstrate alignment with regional industry needs and innovative, career-connected learning.

Alignment with Grant Requirements and Priorities:

1. The project provides industry-level equipment (freeze dryer) to support technical skill development in food science and business, meeting the requirement to equip students with workplace-relevant skills.
2. It develops a new CTE pathway experience by integrating Agriculture Science and Business classes, giving students hands-on exposure to processing, marketing, and sales.
3. The project promotes accessible, equitable, and inclusive learning, as all students in the relevant courses will have the opportunity to participate in hands-on, real-world projects.
4. By connecting classroom learning to the local/regional economy, students gain insight into potential careers in agriculture, food science, and agribusiness, meeting the encouraged priority of career-connected learning.

	<ol style="list-style-type: none"> 5. Collaboration between the Ag and Business programs exemplifies innovative and aligned approaches, allowing students to explore new ways of applying knowledge across disciplines and to experience entrepreneurial processes in a real-world setting. 6. Success will be measured through student participation rates, skill mastery rubrics, sales and marketing outcomes, and student reflections, demonstrating how the project builds pathways to college, careers, and future workforce readiness.
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Collaborative Partnerships

<p><i>List all partners in this project. Clearly articulate how partners are intentionally and actively engaged in supporting the project and advancing student learning that builds pathways to local/regional careers.</i></p>	<p>The partners in this project include the Nashwauk-Keewatin High School Agriculture and Business programs, the Grand Rapids Agriculture program, and Sugar Rusch LLC, a local freeze-dried candy company. Teachers from Nashwauk-Keewatin High School and Grand Rapids will collaborate to share best practices, troubleshoot challenges, and exchange program strategies, allowing instructors to bring proven methods and insights back to their own classrooms. Sugar Rusch LLC will provide industry insight through guest presentations, demonstrations, and mentorship, helping students understand professional production standards, marketing strategies, and career opportunities in the freeze-dried food industry. Through these intentional partnerships, students gain hands-on, career-connected experience, develop both technical and entrepreneurial skills, and explore authentic pathways to careers in agriculture, food science, and agribusiness.</p>
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<p><i>Describe the ways in which partners will benefit from their involvement (i.e., What's in it for them?).</i></p>	<p>Partners will gain multiple benefits from their involvement in this project. Teachers from the Grand Rapids Agriculture program will have the opportunity to share expertise, curriculum strategies, and best practices, which reinforces their own professional growth and validates the effectiveness of their program. Nashwauk-Keewatin High School Agriculture and Business teachers will benefit by learning new approaches to freeze-drying, product development, and integrating technical and entrepreneurial skills into the classroom. Sugar Rusch LLC will gain visibility in the local education community, build relationships with future potential employees, and provide mentorship that strengthens the next generation of skilled workers in the freeze-dried food industry. Overall, these collaborations allow all partners to exchange knowledge, expand professional networks, and contribute to the development of a workforce with technical, business, and career-ready skills, while directly impacting student learning and engagement.</p>
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Regional Value: Student and Career Connections

<p><i>How is this project tied to local/regional career opportunities?</i></p>	<p>This project directly supports local and regional career pathways in agriculture, food science, agribusiness, and marketing, which are key sectors in Minnesota's economy. By incorporating freeze-drying technology into the classroom, students gain hands-on experience with food preservation, processing, and value-added product development — skills that align with regional industries focused on food production, specialty crop processing, and agricultural innovation. Students will also explore the business and marketing side of agriculture, reflecting the growing demand for professionals who can bridge the gap between production and consumer markets. The project helps students see how local industries rely on these interconnected roles, preparing them with both technical and business skills that are in demand across northern Minnesota and the broader regional economy. Ultimately, this initiative provides authentic,</p>
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	<p>career-connected learning that equips students with the knowledge, experience, and confidence to pursue high-wage, high-demand careers within their own communities.</p>
<p><i>Identify at least one regional occupation students will explore, gain exposure to, and/or acquire experience for. (You may use the Career Pathway Tool to help identify high-wage, in-demand careers for your region.)</i></p>	<p>One example of a regional occupation connection is a general and operations manager. Through this project, students will gain exposure to the skills required of a regional General and Operations Manager, a high-demand role across Minnesota's agricultural and business sectors. By managing the production, marketing, and sales of freeze-dried products, students will experience the decision-making, organization, and leadership responsibilities that mirror real-world operations management. They will learn how to oversee processes from product development to customer sales, coordinate resources, and evaluate performance — all key skills required of operations managers. This hands-on experience provides students with a foundational understanding of how effective management supports business success, preparing them for future careers in agriculture, food processing, and entrepreneurial management within the regional economy.</p>
<p><i>How do you know students are interested in and/or will value this opportunity?</i></p>	<p>Students have consistently shown enthusiasm for hands-on, project-based learning in both the Agriculture Science and Business classrooms. Previous classroom activities, such as food processing labs, product development projects, and school store entrepreneurship experiences, have received high levels of engagement, with students actively volunteering for leadership roles, contributing creative ideas, and requesting additional opportunities to participate. Informal surveys and class discussions indicate that students are excited about learning new technology, like the freeze dryer, and applying it to real-world scenarios that connect science, business, and entrepreneurship. This demonstrates that students are not only interested in the technical and business skills this project provides but also recognize the value of experiences that prepare them for future careers in agriculture, food science, and business management.</p>

Budget and Sustainability

<p><i>Include a detailed budget specifying funding categories and amounts (e.g., supplies, travel, equipment). Once funds are expended, how will you sustain this project?</i></p>	<p>The proposed budget for this project includes the purchase of a freeze dryer for \$4,995, for the Harvest Right X-Large Freeze Dryer Industrial Vacuum Pump. A freeze dryer will be ordered through harvestright.com. This will serve as the primary piece of industry-level equipment for hands-on learning in both the Agriculture Science and Business classrooms. No travel or additional expenses are required. Once the equipment is purchased, the project will be sustained by integrating the freeze dryer into the regular curriculum, allowing students to continue participating in cross-curricular, project-based activities that develop technical, business, and entrepreneurial skills. Community and school partnerships will further support ongoing engagement and maintenance, ensuring that this career-connected learning experience remains accessible and impactful for future students.</p>
<p><i>What, if any, matching funds are you/your partners providing? Matching funds are strongly encouraged as they demonstrate the partners' support and indicate greater potential for sustaining the project.</i></p>	<p>Greenway High School has offered \$1500 to the overall financial obligation to provide materials. Profits from the sales of the products will be reinvested into future products.</p> <p>Additional supplies, such as ingredients and consumables for food processing labs and school store products, are estimated at \$1500 and will be supported through existing classroom funds or modest sales revenue generated by student-made products.</p>

Certification & Assurances

I certify that the information in this application is true and correct to the best of my knowledge and belief and that I have the authority to apply for the requested award and in the amount requested.

Signature of Primary Project Contact

Spencer Potter

Printed Name

Spencer Potter

Title AFNR Teacher

Date 10/28/25

Signature of Authorized Representative

Dianna Hazelton

Printed Name

Dianna Hazelton

Title Principal

Date 10/28/25

