WACO ISD EDUCATION FOUNDATION
COVER SHEET – PART II
Application for Grant:
2026-2027 Funding Cycle

Assigned Grant Proposal #: 90

Project Title: Roots of Inclusion: Common Ground Hydroponics

Grade Level(s): 6-8 **# of Students DIRECTLY involved:** 75

Subject Area(s): Math, ELA, STEM

Amount Requested: $ 1,184.00

Grant Focus Area(s): In order to be considered, Waco Education Foundation Innovation Grant proposals must fall under one or more of the E4 focus areas: early childhood development, enhanced programming for advanced students, extended education for staff, and emphasis on student performance. NOTE: In addition to meeting one of the E4 focus areas above, grant readers are especially interested in creative and innovative grant requests that target fine arts, STEM, literacy, or enrichment.

(check all that apply)

- ☐ Early Childhood Development
- ☐ Enhanced Programming for Advanced Students
- ☐ Fine Arts
- ☑ Literacy
- ☐ Extended Education for Staff
- ☐ Emphasis on Student Performance
- ☑ STEM
- ☑ Enrichment

90 - Roots of Inclusion: Common Ground Hydroponics

Project Description: The Roots of Inclusion: Common Ground Hydroponics is an innovative vertical farming initiative that brings together Resource, SAIL (Social Adaptive Interpersonal Learning), and ACHIEVE (Functional Academics) students through soil-free agriculture. Designed as a sensory-friendly living lab, the project connects functional life skills with academic TEKS by engaging students in data collection, system monitoring, and vocational skill development. Grant funding will support aeroponic towers, LED grow lighting, and digital sensors, creating a hands-on hub for STEM learning and peer mentorship. With guidance from Texas Master Gardeners and a field trip to True Harvest Farms, students gain real-world horticulture exposure while collaborating.

1. **Rationale**: The Roots of Inclusion serves as a premier creative classroom project by reimagining the traditional classroom as a high-tech, sensory-friendly "living lab." While standard science curriculum can often be abstract, this initiative provides a tangible, soil-free agricultural environment where students with diverse learning needs apply academic concepts in real time. By integrating specialized programs like Resource, SAIL, and ACHIEVE into a single collaborative ecosystem, the project moves beyond traditional instruction to foster a culture of Rewards for Results, where student success is measured by the literal growth of their harvest and the mastery of complex environmental systems.

This initiative directly supports the District and Campus Improvement Plans by prioritizing inclusive excellence and transition-readiness. The project addresses a critical need for accessible vocational training; traditional gardening often presents physical or sensory barriers, but our vertical aeroponic towers and digital sensors allow students of all mobility levels to engage with STEM. To ensure academic rigor, the curriculum is mapped to specific TEKS in Science, Math, and ELA, while also serving as a vehicle for meeting individual IEP goals in a functional setting. Whether students are analyzing pH data (Math/Science), documenting plant growth cycles (ELA), or practicing social communication during harvesting (IEP goals), they are receiving high-quality instruction that prepares them for post-secondary life.

Furthermore, the project leverages unique community expertise to ensure long-term horticultural success. Our partnership with the Texas Master Gardeners includes both an on-campus teacher and a local neighbor of one of the grant writers, both of whom have committed to providing hands-on mentorship and guest lectures. This blend of internal and external expertise fills a gap in our current curriculum by providing a sustainable model for community-based learning that empowers students to see themselves as contributors to the local food economy.

Goals: The primary goal of The Roots of Inclusion: Common Ground Hydroponics is to foster critical thinking and innovation by transforming traditional special education classrooms into a high-stakes, high-reward "living laboratory." Students will move beyond rote learning into active scientific inquiry by engaging in systematic troubleshooting, such as analyzing pH fluctuations or light-cycle disruptions, to maintain an optimal growing environment. This requires constant

observation and data-driven decision-making, where innovation is sparked as students experiment with nutrient ratios or vertical spacing to maximize crop yield. By seeing the immediate, tangible impact of their ideas on a complex biological system, students gain a deeper understanding of STEM concepts and real-world problem-solving.

A secondary core goal is to develop collaboration and creativity through a tiered leadership model that embeds interdependence into the project's DNA. To facilitate this, information and labor will be exchanged during WIN (What I Need) classes held twice a week, which serve as a dedicated time when all students from the Resource, SAIL, and ACHIEVE programs can work together in a unified space. By assigning specific "Department Head" roles to each program, the project necessitates a seamless flow of communication to reach the common goal of a successful harvest. Creativity flourishes during the "Farm-to-Table" phase, where students collaborate to design accessible marketing materials, branding, and distribution methods for their produce. These goals are tethered to specific expectations: 100% of participating students will meet targeted TEKS objectives in Science, Math, STEM, or ELA, and each student will demonstrate measurable progress toward their individual IEP goals through functional vocational tasks. This unique social ecosystem ensures that students of all ability levels see one another as essential contributors, fostering a culture of inclusion and professional pride rarely found in traditional academic settings.

Plan of Operation: The Roots of Inclusion: Common Ground Hydroponics is a collaborative, high-tech vertical farming initiative designed to provide students in the Resource, SAIL, and ACHIEVE programs with hands-on STEM and vocational training. By transforming the classroom into a soil-free "living lab," students work together to maintain aeroponic towers and full-spectrum LED lighting systems, bridging the gap between functional life skills and academic TEKS. The primary objective is to foster critical thinking and innovation through active scientific inquiry, such as analyzing pH fluctuations and disruptions to light cycles. This shift from rote learning to data-driven decision-making is facilitated during WIN (What I Need) classes held twice a week, a dedicated time when all three programs converge to manage their "Department Head" responsibilities. Resource students manage scientific data and math; SAIL students oversee technology and environmental systems; and ACHIEVE students lead vocational harvesting and marketing.

To ground their classroom experience in real-world industry, students will participate in a sensory-friendly field trip to True Harvest Farms in Belton. This visit serves as a vital visual for students, allowing them to observe large-scale hydroponic operations, ask industry professionals questions, and take field notes. Back on campus, the project leverages specialized expertise through a partnership with the Texas Master Gardeners, including a teacher on campus and a local neighbor of one of the grant writers. These partners will provide guest lectures and hands-on mentorship to ensure horticultural success. As the crops mature, the project integrates a "Farm-to-Table" component featuring cooking lessons using the produce grown. These sessions will culminate in the creation of a student-made

cookbook—incorporating ELA and sequencing goals—which will be sent home at the end of the year to bridge the school-to-home connection.

Community and parental involvement are woven into the program's fabric through both mentorship and the celebration of diversity. Beyond the technical guidance from the Master Gardeners and True Harvest Farms, parents will be invited to a "Harvest Showcase" at the end of each growing cycle to witness their students' progress. A key "Home-to-Table" initiative invites families to contribute cultural recipes from their own heritage to the final cookbook. By incorporating these diverse culinary traditions, the project introduces a multicultural dimension that fosters pride in students' backgrounds and enables them to share their cultures with their peers.

Timeline:

August - September - Procurement & Logistics

Order aeroponic towers, LED lighting systems, and digital water-quality sensors. Plan a sensory-friendly field trip to True Harvest Farms and secure district transportation. Introduce the project to students, develop “Department Heads” roles, and choose the first rotation of students. Newsletter to go home to parents through ParentSquare of the project, and how the parents can contribute in December with a family recipe.

September - October - Installation/Seed Phase

Assemble systems and conduct the initial mentorship session with Texas Master Gardeners (on-campus teacher and community neighbor). Germinate the first crop; Resource students begin daily data tracking and pH monitoring. Conduct a field trip to True Harvest Farms.

November - Growth Phase

Conduct twice-weekly WIN class collaborations; students perform systematic troubleshooting of nutrient levels and light cycles.

December - First Harvest

The initial harvest, followed by the first Cooking Lesson**,** focused on using fresh salads and herbs for cultural holiday recipes.

January - Experimental Phase"The Science of Growth"

Students experiment with "Variable Testing." They may adjust LED light spectrums or nutrient ratios on different towers to compare growth rates (STEM/Science TEKS focus).

February - Crop Rotation

Students select a new variety of produce to grow based on their findings from January. Guest lecture from Master Gardeners on plant diversity.

March - Cultural Integration

Collect multicultural recipes from families for another "Home-to-Table" project; ACHIEVE students lead branding for the new crop.

April - Cookbook Production

ELA & STEM focus: Across all three programs, writing instructional recipes and designing the Project Cookbook layout, which includes a catchy name..

May - Grand Finale

Final harvest, Parent Harvest Showcase, and distribution of the completed multicultural student cookbooks. Foods that the students cook will be available for a donation to purchase items needed for next year's crop.

Communication & Dissemination: The Waco Education Foundation, the Board of Education, and district personnel are essential partners in The Roots of Inclusion, and we are committed to providing multiple opportunities for Foundation members and district leadership to witness the impact of their investment firsthand. We will extend formal invitations to Foundation representatives to join us for our most significant milestones, beginning with our initial mentorship sessions with the Texas Master Gardeners. Foundation members are also encouraged to attend our high-energy "First Harvest" event, which serves as a premier photo opportunity as students transition from scientific data collection to vocational harvesting. Furthermore, we invite the Foundation to observe our Farm-to-Table cooking lessons, where they can see the multicultural history of our family recipes come to life. The capstone of our involvement plan is the Parent Harvest Showcase in May, a celebratory event where students will present their work, high-tech systems, and final harvest to the community.

To ensure this model of inclusive STEM education benefits the entire district, we have developed a comprehensive dissemination plan to share our results and curriculum. We intend to propose a session for one of the District Professional Development days, specifically targeting special education and science teachers, to demonstrate how hydroponics can be used to meet complex IEP goals and TEKS simultaneously. We will also coordinate with the district's communications team to feature the project on WISD-TV, providing a visual narrative of the collaboration between the Resource, SAIL, and ACHIEVE programs. Finally, we are fully prepared and eager to present the project's data, student success stories, and a "tasting" from our harvest at a Board meeting to demonstrate the sustainable value of this grant.

Evaluation: To determine the effectiveness of The Roots of Inclusion, we will utilize a multi-tiered evaluation strategy that tracks academic growth, vocational proficiency, and social integration. Success will be measured by mastery of TEKS-aligned objectives in Science, Math, and ELA, with data collected through student portfolios and lab journals. Additionally, we will track the attainment of Individualized Education Program (IEP) goals, specifically focusing on functional life skills, following multi-step directions, and social communication. The successful production of a healthy harvest and the completion of the Multicultural Student Cookbook will

serve as tangible evidence of the project's vocational and creative success. Qualitative data will also be gathered through student reflections and parent feedback following the Parent Harvest Showcase.

To ensure the project remains on track and highly effective, the teachers and paraprofessionals from the Resource, SAIL, and ACHIEVE programs will conduct periodic collaborative meetings. These sessions will take place during district teacher workdays throughout the school year, providing a dedicated time for the instructional team to engage in systematic troubleshooting and project adjustments. During these meetings, staff will review student data, assess the health of the hydroponic systems, and refine instructional strategies to better meet the diverse needs of the student cohorts. This iterative process allows the team to pivot in real time—such as addressing nutrient imbalances or curriculum pacing—ensuring that the "living lab" remains a sustainable, high-quality learning environment for all participants.

Long Term Implications: The sustainability of The Roots of Inclusion is built into its design through a self-funding model that leverages the project's own creative and agricultural output. Following the 2026-2027 school year, the initiative will be maintained through community-supported revenue streams generated during events such as the Parent Harvest Showcase. We plan to offer a high-quality, hard-copy edition of the Multicultural Student Cookbook annually in exchange for donations, which will help replenish consumables such as seeds, nutrient solutions, and grow sponges for subsequent years. By transforming our "Farm-to-Table" phase into a recurring community event, we ensure that the project remains financially independent of future grant cycles while simultaneously teaching students the fundamentals of social entrepreneurship and financial literacy.

To further diversify our funding and increase visibility, we intend to integrate the project into existing campus traditions. A key strategy for long-term support is selling harvested goods and herbs at other schoolwide events, such as the annual Chili Cook-Off in January. By providing fresh, student-grown ingredients to the wider school community, we not only raise funds for equipment maintenance but also foster a sense of pride as our students see their work featured in a popular campus competition. This recurring presence at school events ensures that the "living lab" remains a visible and valued part of the school culture.

The long-term impact of this project extends far beyond the initial harvest. For the students in the Resource, SAIL, and ACHIEVE programs, this initiative establishes a permanent vocational training hub that can serve hundreds of learners over the coming decade. As the equipment is designed for multi-year use, the "living lab" will become a staple of our campus, providing a consistent environment where students can master high-tech agricultural skills. Furthermore, the partnership with the Texas Master Gardeners creates a lasting bridge between the school and the community. Ultimately, the project leaves a legacy of inclusive education, proving that students with diverse learning needs can lead the way in environmental innovation and community connection.

Key Personnel: The execution of The Roots of Inclusion relies on a collaborative team of three specialized educators, each bringing a unique blend of pedagogical expertise and practical skills to the "living lab." Each teacher is directly responsible for managing their specific student cohort's roles—Resource, SAIL, or ACHIEVE—ensuring that daily tasks align with both the TEKS-aligned curriculum and individual IEP accountability. Beyond classroom instruction, the team will divide leadership for the project's specialized components based on their professional strengths. The cooking lessons will be strategically partitioned by each teacher's level of culinary and vocational expertise, while the creation of the Multicultural Student Cookbook will serve as a shared capstone collaboration among all three educators to ensure that every student's voice and heritage are represented.

The instructional team possesses an exceptional range of qualifications suited for this high-tech initiative. The lead teacher offers over 30 years of experience spanning Pre-K through 12th grade in both general and special education settings; she brings direct technical knowledge from managing a home hydroponic system and is currently authoring a cookbook. The second teacher contributes over 10 years of experience in middle school general and special education, complemented by extensive home gardening experience and a passion for culinary arts. The third team member brings over 6 years of teaching experience at the middle and high school levels, fortified by a professional background in the food services industry. This combination of veteran teaching experience, technical gardening skill, and professional culinary background ensures that students receive high-quality, industry-standard mentorship throughout the project's lifecycle.

Budget Narrative/Justification: The budget for The Roots of Inclusion: Common Ground Hydroponics is strategically allocated to establish a fully functional, school-sized "living laboratory" that serves students across the Resource, SAIL, and ACHIEVE programs. The primary investment focuses on high-quality hydroponic growing systems, full-spectrum LED lighting, and digital water-quality sensors to ensure a professional-grade agricultural environment. To sustain the initial growing cycles, funding will cover essential consumables, including non-GMO seeds, nutrient-rich solutions, pH-balancing kits, and germination sponges. These items are the foundation of the project, allowing students to engage directly with the STEM and vocational objectives by managing a complex, soil-free biological system from seed to harvest.

In addition to the agricultural technology, the budget includes funds for the "Farm-to-Table" branding and publication phase. To foster a sense of entrepreneurship and professional pride, we will procure materials to create small tabletop signage for harvest displays, allowing students to practice marketing and communication skills during schoolwide events such as the Chili Cook-Off. The budget also accounts for the production of at least 50 hard-copy cookbooks. We will purchase high-quality spiral binding materials, heavy-duty cardstock for covers, and printing supplies to ensure these multicultural cookbooks are durable keepsakes that families can cherish. By investing in these tangible outputs, the budget not only supports immediate academic and vocational learning but also provides the infrastructure for the project's long-term sustainability through community donations.

Waco Education Foundation

Grant Budget Form

Assigned Proposal #	90
Project Title:	s of Inclusion: Common Ground Hydropo
Number of Students Served by Grant:	75

Qty	Budget Item	Verify Vendor (Y or N)	$ Requested from the WISD Foundation	Other Secured Source	$ from Other Source (if applicable)	Total Amount
	Consumable Supplies					
1	Salad Seed Pods, Grow Anything Kit for All Hydroponics Growing Systems,	y	$ 15.98			$ 15.98
1	Herb Seed Pods for All Hydroponics Growing Systems	y	$ 15.98			$ 15.98
1	fruit/vegatable Seed Pods for All Hydroponics Growing Systems	y	$ 15.98			$ 15.98
1	Carnation Flower Seeds for Planting	y	$ 7.98			$ 7.98
1	Farmer's Secret Hydroponic Booster Fertilizer - Super Concentrated 4-11-8 Formula	y	$ 30.00			$ 30.00
1	XIDAJIE 600 Pcs Hydroponic Sponges Planting Gardening Tool Soilless Cultivation Seedling Sponges	y	$ 18.00			$ 18.00
	total Consumable Supplies		$ 103.92		$ -	$ 103.92
	Technology					
						$ -
						$ -
	total Technology		$ -		$ -	$ -
	Long-Term Supplies / Equipment (items that will last beyond the grant year)					
3	Carpathen Hydroponic Tower Growing System - Indoor Vertical Gardening System	Y	$ 599.91			$ 599.91
1	Plants Full Spectrum with 15-63 inches Adjustable Tripod	y	$ 27.99			$ 27.99
2	BILLIOTEAM 50pack Mini Clear Sign Display Holder	y	$ 30.00			$ 30.00
3	VANCASTLE Plant Caddy with Lockable Wheels Heavy Duty 450lbs Capacity, 15-22 Inch Adjustable Plant Stand with Wheels Rolling base,	y	$ 22.00			$ 22.00
						$ -
						$ -
	total Long-Term Supplies		$ 679.90		$ -	$ 679.90
	Contracted Services					
						$ -
						$ -
	total Contracted Services		$ -		$ -	$ -
	Personnel					
						$ -
						$ -
	total Personnel		$ -		$ -	$ -
	Travel / Other					
1	School Bus (Field Trip hydroponic farm)	y	$ 400.00			$ 400.00
						$ -
						$ -
						$ -
	total Other		$ 400.00		$ -	$ 400.00

Totals	Total Requested from the WISD Foundation	Foundation Cost Per Student	Total from Other Sources	Total Cost of Project
	$ 1,183.82	**15.78426667**	**$ -**	**$ 1,183.82**