

redesigning
the high school
EXPERIENCE

for College and Career Readiness
A GUIDE FOR SCHOOL LEADERS



Volume 2

“Growing Green in Fort Sumner”

Fort Sumner High School
Fort Sumner, New Mexico

REDESIGNING

THE HIGH SCHOOL EXPERIENCE FOR

COLLEGE AND CAREER READINESS

INTRODUCTION TO THE SERIES

The National Career and Technical Education Foundation (NCTEF) and Microsoft Corporation's U.S. Partners in Learning program have partnered to develop this guide for the series, "College and Career Readiness Program." The series showcases success stories of high schools that are creating a different kind of learning experience. The goals are to engage and educate students and successfully overcome the challenges of students dropping out and lack of preparation for college and career. These schools implement meaningful and relevant programs of study for students aligned to career clusters and 21st century skills. They provide examples and inspiration for other school leaders looking for best practices to guide the same success.

Each guide highlights an innovative initiative designed and launched to give students a high-impact experience within one of the school's programs of study. The initiatives provide a highly visible and tangible activity related to the knowledge and skills required in a career cluster. The goal of each guide is to tell the story of how the school successfully brought the initiative to life, sharing tips and insights for school leaders interested in aligning their curriculum to the Career Clusters model.

About the Partners

National Career Technical Education Foundation

The National Career Technical Education Foundation (NCTEF) is a partner organization to the National Association of State Directors of Career Technical Education Consortium (www.careertech.org) and supports the association's goals and objectives through its 501(c) 3 status. The purpose of NCTEF is to develop and fund activities and programs that are designed to improve the career technical education system at the secondary, postsecondary and adult levels. NCTEF manages the States' Career Clusters Initiative, a nationwide effort designed to transform learning, modernize career technical education and improve student success.

Microsoft Corporation

Through the Partners in Learning (PiL) program, Microsoft is investing its resources—people, partnerships, services, philanthropy, and products—to stimulate positive change in education. Microsoft wants to help develop individuals and academic organizations to support 21st century learning, digital inclusion, and education reform. PiL projects all aim to:

- Create new 21st century learning communities.
- Help existing schools transform into 21st century learning communities.
- Develop skilled and innovative leaders.
- Increase adoption of innovative learning solutions through scale.

Because Microsoft believes that successfully creating and transforming learning communities can only be done through partnership, we work closely with educators, schools, school districts, state departments of education, and other organizations to create diverse projects that can serve as models for the future. For more information visit <http://www.microsoft.com/education/uspil/default.aspx>.



"The education in our school has to be as current and as viable as education anywhere else in the United States."

- Patricia Miller, superintendent

CAREER CLUSTERS

CAREER CLUSTERS ARE GROUPINGS OF OCCUPATIONS USED AS AN ORGANIZING TOOL FOR CURRICULUM DESIGN. INSTRUCTION IN A CAREER CLUSTER PREPARES LEARNERS FOR A FULL RANGE OF CAREER OPPORTUNITIES WITHIN THE CAREER CLUSTER, FOCUSING ON CRITICAL KNOWLEDGE AND SKILLS THAT ARE TRANSFERABLE AS NEW OPPORTUNITIES ARISE AND THE INDUSTRY CHANGES.

Career Clusters Framework

Career Clusters are groupings of occupations used as an organizing tool for curriculum design. Instruction in a career cluster prepares learners for a full range of career opportunities within the career cluster, focusing on critical knowledge and skills that are transferable as new opportunities arise and the industry changes. Nationally, 16 career clusters are recognized with 79 career pathways identified. This collection of career clusters and pathways present a way to categorize thousands of occupations currently available.

The Career Clusters framework is an approach used by schools to orient career exploration and career guidance, select curriculum offering, show relevance of academic courses, and engage community civic and business leaders in partnerships. This approach differs from a system where schools provide instruction on specific occupations, often separate from the general curriculum. Career Clusters is valuable in supporting effective transitions between secondary and postsecondary education by impacting the design of programs of study offered by a school. A program of study is a sequence of instruction consisting of coursework, co-curricular activities, work-site learning, service learning and other learning experiences. Approved programs of study are required for school systems to be eligible for federal Carl D. Perkins funds that support career and technical education.

The Marketing Career Cluster

This diverse career cluster prepares learners for careers in planning, managing, and performing marketing activities to reach organizational objectives. Advertising, public relations, and sales are industries encompassed this career cluster. The Marketing Career Cluster identifies five career pathways:

- **Marketing Management Pathway** - Includes careers that formulate policies and direct the operations of businesses and corporations, nonprofit institutions, and other organizations.
- **Professional Sales Pathway** - Includes careers that are involved in the transfer of goods and services in the economy, both to businesses and individual consumers.
- **Merchandising Pathway** - Includes careers that focus on getting products to customers through effective forecasting, planning, buying, displaying, selling, and providing customer service.
- **Marketing Communications Pathway** - Includes careers that plan, coordinate, and implement marketing strategies, advertising promotion, and public relations activities.
- **Marketing Research Pathway** - Includes careers that collect and analyze data and information to design new products, predict future sales, and position a company's strategies against those of its competitors.

Marketing manager, merchandise buyer, sales representative, logistics manager, creative director, and brand manager are examples of careers in this cluster.



CAREERS IN THIS CLUSTER

Account Executive
Advertising Manager
Art/Graphics Director
Brand Manager
Creative Director
Database Manager
Department Manager
Director of Market Development
Entrepreneur
Independent Distributor
Interactive Media Specialist
Logistics Manager
Marketing Associate
Merchandise Buyer
Merchandising Manager
Operations Manager
Product Planner
Public Information Director
Regional Sales Manager
Research Specialist
Retail Marketing Coordinator
Retail Sales Specialist
Shipping/Receiving Manager
Store Clerk
Technical Sales Specialist



Marketing Cluster

Fort Sumner Municipal Schools in Fort Sumner, New Mexico, began implementing the Career Clusters' model in 2007 with the Marketing Career Cluster as a program of study option for students. The addition of a downtown retail outlet to the existing greenhouse on campus created the synergy needed to engage students in exploring several marketing-related career pathways. As a result, students gained access to a relevant educational experience that equipped them with the skills necessary for success in a variety of marketing-related careers. Additionally, the greenhouse and retail outlet fulfilled the local community's demand for high-quality, reasonably priced household and landscape plants and home-garden vegetables for consumers.



VISIONARY LEADERSHIP

IDENTIFYING THE OPPORTUNITY



- Fort Sumner Municipal Schools are located in Fort Sumner, New Mexico (see map).
- The school district serves a rural and sparsely populated area of more than 2,300 square miles in De Baca County, New Mexico. The county population is approximately 2,240 with 1,249 citizens living in the county seat of Fort Sumner.
- There are 317 students enrolled in kindergarten through grade 12. One-hundred two students are enrolled in grades nine through 12. The average graduating class size is 26 students.
- On average, Fort Sumner graduates 97 percent of each senior class. Approximately 90 percent of students who graduate go on to some form of post-secondary education, and 90 percent of those students are invited to return for a second year.
- During the 2008-09 academic year, approximately 44 percent of students grades nine through 12 qualified for free or reduced-price lunch.
- Student population is 51 percent Caucasian, 48 percent Hispanic, and one percent other.
- During the 2008-09 academic year, 85 percent of students in grades nine through 12 participated in a school-sponsored extra-curricular activity.
- The Growing Green enterprise started in Fort Sumner in 2007-08, offering students opportunities to explore and pursue careers in the Marketing Career Cluster. Currently, approximately 80 students and six teachers from grades four through 12 are engaged by the program.

STRATEGIC PLANNING

Strategic Planning – the 6i Process

The 6i process is an effective framework that guides each school in finding the right answers for that particular school. The process allows flexibility for schools to progress through phases at their own pace. The six stages of the process are

- INTROSPECTION INVESTIGATION
- INCLUSION INNOVATION
- IMPLEMENTATION INSIGHT

For more information on how to use the 6i process in developing and implementing your strategic plan, visit http://www.microsoft.com/education/pil/Isc_6iDevProcess.aspx.

Fort Sumner schools built an on-campus greenhouse more than 10 years ago. At the time, Mrs. Sharon West, a fourth-grade instructor at the school, had a vision for a learning lab that would allow students in the school an opportunity to have hands-on learning experiences in science. Beyond enhancing classroom learning, Mrs. West also recognized the growing need for economic revitalization in the community. She hoped that the greenhouse might introduce students to different career options related to agriculture, which remains the county's primary industry. Most students attending the school had few ties to production agriculture; thus, the new greenhouse had the potential to introduce students and the community to different economic opportunities, such as marketing horticultural products. The district built the greenhouse through support from a grant provided by the De Baca County Soil and Water Conservation District and Mrs. West achieved her initial mission.

Several years later, Mrs. West moved from her position as a fourth-grade teacher to a new role as the Fort Sumner High School computer sciences instructor and technology coordinator. Mrs. West explained, "Without an internal champion, use of the greenhouse began to decline. By 2006, the greenhouse was best categorized as a 'hobby' greenhouse for use by teachers." However, the arrival of Mrs. Patricia Miller as the new superintendent of schools marked a new era in the life of the greenhouse.



“This approach to education allows students to see science and math concepts come to life!”

Pam Nuttall – instructor

Mrs. Miller reflected on her arrival, “On my very first tour of the campus, I noticed this neat greenhouse that seemed to be full of untapped potential. I wanted to make it a useful instructional space again.” Mrs. Miller went on to say, “As a school, we are charged with the paramount task to educate every child and prepare him or her for the world of work and post-secondary education. In addition, in a small community like Fort Sumner, the school has a responsibility to give back to the community in ways that might stimulate business development in the local economy.” Charged with this purpose and a desire to revitalize the greenhouse, Mrs. Miller tried to hold a community meeting to share and gather feedback about her ideas for expanding the educational and economic value of the school greenhouse. The initial meeting did not have any participants. Mrs. Miller persisted in reaching out to the community for feedback by “going to the community” through a series of “community conversations.” Mrs. Miller called on community organizations, such as the ministerial alliance, the chamber of commerce, the village council, and the rotary club, to secure time during their regularly scheduled meetings. During her presentations, she shared a vision for making the greenhouse a useful space and asked community members for feedback. These conversations led to a shared vision for a school-based enterprise that would add economic value to the community and introduce students to a variety of new career options.

While the shared vision provided inspiration, it was still a long way from implementation. Neither the school staff nor the individuals in the community had a strong background in horticulture – much less how to expand the existing greenhouse into a commercial grade enterprise. Mrs. Miller recognized the need to engage experts who could provide direction and support for the vision. She contacted the local New Mexico State University Cooperative Extension (NMSU-CES) office for assistance. NMSU-CES recommended that the group conduct an economic feasibility study. This study analyzed the local economy to determine if a new business enterprise would be viable. Data from the feasibility study assisted the stakeholders in Fort Sumner in making an informed decision about whether to continue pursuing the proposed venture. Feasibility studies can be costly. For instance, the total cost of this study was approximately \$3,000; however, by partnering with the New Mexico Rural Development Response Council (NM-RDRC), NMSU-CES was reimbursed for their assistance through a grant NM-RDRC had that enabled them to offer community development assistance as part of their public service mission.

Preliminary results from the feasibility study indicated that the school-based enterprise was feasible. The next step was to create a business plan to translate the vision for the enterprise into actionable steps. Mrs. Miller, the Fort Sumner Community Development Corporation (FSCDC), the Village of Fort Sumner and NMSU-CES engaged in developing a business plan. This plan further clarified the products the greenhouse was to produce and identified the steps necessary to get the greenhouse up and running. The plans also outlined the necessary improvements to the greenhouse and offered options for marketing and selling the plants grown in the improved facility.

The entire economic feasibility study and business plan development effort took eighteen months to complete. In the end, Mrs. Miller and the school district had a business plan and data to support the shared vision for upgrading and expanding the use of the school greenhouse as an instructional opportunity for the districts’ students. The plan was a crucial first step in building the school-based enterprise. The documents from these processes were vital tools in securing the necessary funding. Each time Mrs. Miller requested funds or in-kind resources, these documents armed her with the data to demonstrate the feasibility of the project. Further, the plan created transparency about the goals, vision and expected results and communicated the viability of the opportunity to key stakeholders, such as the school board and community members.

After a coordinated two-year effort to secure business plan funding, the school was ready to launch Growing Green in Fort Sumner during the 2008-09 school year. The result was the realization of a shared vision for a school-based venture that met a need for economic development in the community and offered students a program of study where they could experience careers in marketing first-hand as they learned important skills in product production, pricing, placement (distribution), and promotion.

THE BOTTOM LINE: STUDENT SUCCESS

AND 21ST CENTURY SKILL DEVELOPMENT

Today, the updated greenhouse and new Growing Green storefront in downtown Fort Sumner offer students opportunities to experience success as they acquire the skills necessary to thrive in the 21st century workplace. As the instructors and superintendent at Fort Sumner High School reflect on the first full year of implementation, they identify several aspects of the program that demonstrate potential for promoting student success in post-secondary education and careers.

Interdisciplinary Learning

The Growing Green enterprise provides a context that supports interdisciplinary learning for students in the marketing cluster program of study. For example, students can complete one of the required science lab credits by enrolling in a science inclusion designed by Mrs. Pam Nuttall, a high school science instructor. Doing so provides students with an opportunity to see science applications in the production aspect of the marketing enterprise. Mrs. Nuttall reflects, "It requires coordination and communication, but in the end, seeing students motivated because they understand how science is important to the overall marketing enterprise is worth every minute of planning." Ensuring time for this planning has been a priority.

Coordinating interdisciplinary learning requires a shared commitment from teachers. At Fort Sumner, two of the three teachers involved are fortunate to have a common planning period. To involve the third teacher, they agree to meet regularly before and after school to accommodate needed planning.

21st Century Skill Development

Through experiences at Growing Green in Fort Sumner, students practice skills ranging from customer service to technical skills involved in operating computer applications required to run a 21st century business. Students access these skills through working in all aspects of the enterprise – from retail sales at the storefront, to packaging product for resale in the greenhouse.

To work at Growing Green, students may enroll in a work-release course, a career exploration course, or one of the courses in the marketing program of study. As much as possible, working at Growing Green reflects experiences students will have in obtaining and advancing in a real career. Students must interview for placement, receive cross-training in all aspects of the business, apply for promotions, work in teams, manage others, and complete journals on their skill development. As part of the experience, students note improved skills in problem solving, responsibility, delegation, and using technology applications to perform inventory and marketing tasks.

Career Exploration in Multiple Marketing Pathways

Due to the size and scope of the Growing Green enterprise, students at Fort Sumner explore a variety of career pathways in the marketing cluster. Mrs. Cathy Fikany, an instructor, says, "As students rotate through the various aspects of the enterprise, they learn about their talents, abilities, and interests. Last year, I had a student who began the year convinced that she would love being at the front register in the store. Instead, she found her niche in analyzing data about purchasing trends to make recommendations for production. With this experience, she's better prepared to make decisions about her future."

From the students involved in the actual class, approximately 35% indicate that they would like to go into a career in this field. Students list the retail experience as well as the creative marketing involved in setting up the storefront as two of the main reasons. Offering the opportunity for focused career exploration gains positive feedback from parents in the community, as well. Mrs. Miller comments, "Parents have expressed their excitement about the program because their children speak with confidence about their plans for the future."

ESSENTIAL KNOWLEDGE AND SKILLS

Certain skills are essential for success in any career. Programs oriented toward preparing students for college and career readiness should emphasize development of skills and knowledge in the following areas: Academic Foundations, Problem Solving and Critical Thinking, Information Technology Applications, Systems, Safety, Health and Environmental Systems, Leadership and Teamwork, Employability and Career Development, and Technical Skills.



"What I like about Growing Green is that students have an opportunity to gain skills and experiences that will benefit them in a variety of careers in marketing – they aren't training for one specific job."

Cathy Fikany, instructor

INNOVATIVE LEADERSHIP AND TEACHING

Growing Green in Fort Sumner challenges some paradigms about what “effective” instruction looks and sounds like. Innovative practices, such as implementing career development activities that engage parents, providing course options so all students may access workplace-learning experiences, and integrating career and technical student organizations with the work-based enterprise, are critical components of the program’s success.

Involving Parents in High School Planning and Career Development

At Fort Sumner, all students in eighth grade complete a Next Step Plan, which is one element of New Mexico’s high school redesign efforts. The purpose of the Next Step Plan is to provide a structure for high school students to conscientiously plan for their future. Each plan identifies individual students’ goals, intended high school four-year course of study, opportunities for involvement and linkages to additional resources needed to achieve their stated goals. Students begin by completing an initial plan during their eighth-grade year. Each subsequent year prior to graduation, students review and revise the plan to evaluate progress. Fort Sumner engages parents in a meeting with school staff and the students as they identify and track progress on this personal learning plan. Administrators at Fort Sumner find that engaging parents in the creation of these personalized learning plans increases student and parent ownership of the career education plan.

Providing Options to Access Workplace Learning in the Cluster Area

It is challenging to provide all students with access to opportunities for workplace learning at the Growing Green enterprise. Students who live in the village are able to work after school. However, Fort Sumner Municipal Schools serve a rural and sparsely populated area of more than 2,300 square miles, making long-distance travel a way of life for many students. For some students, the work-release period is an option to access the experience during school hours. However, this opportunity does not offer credit toward graduation requirements, which further limits the students who can take advantage of the opportunity. To meet the needs of students who also need to earn credit, Fort Sumner offers a career exploration/workplace readiness course in which students can work in the enterprise and earn a credit to satisfy graduation requirements. Offering these options to students allows them a choice as they consider how they want to accomplish the workplace learning aspect of the clusters program of study during school hours.

Integrating Career and Technical Student Organization (CTSO) Programs with the School Enterprise

Teachers indicate that the inclusion of the Business Professionals of America (BPA) student group has positively affected the motivation and involvement of the students in the program of study. Mrs. West advises the Fort Sumner Chapter of BPA, a CTSO. As the leader for the career cluster curriculum at Fort Sumner, she uses the resources and programs available from BPA to enhance the curriculum. For example, she uses Growing Green as a context for students to complete several areas of BPA’s Workplace Skills Assessment Program. Through this program, students complete self-directed projects to demonstrate skills in areas such as business planning, entrepreneurship, presentations, Web page design, and advertising. BPA student members have documented the progress in the Growing Green enterprise using both video and digital imagery processes which can be seen throughout this document. This team of students participated in the New Mexico BPA competition and in 2009 was named New Mexico champion in the BPA film category.

Engaging Elementary Students

One of the goals with Growing Green is to engage as many students as possible in a meaningful learning experience. As part of the program, fourth-, fifth- and sixth-grade students are able to participate in the enterprise by visiting the greenhouse to work with a high school mentor. The elementary students divide into teams and rotate through different opportunities in the greenhouse for one hour in the afternoon once each week during the school year. Mrs. Fikany says, “The younger students are excited to be working with their high school mentors.” Bringing the younger students into the greenhouse introduces them to one aspect of this program of study and offers high school students the chance to deepen their understanding of the knowledge and skills taught in the program by teaching the younger students. As well, they develop important interpersonal skills as they work with the younger students. Over time, program leaders believe the early exposure to the program will generate interest in the program of study as students enter high school.



“I knew I was interested in advertising and marketing. Working at Growing Green helped me learn more about what those careers entail and what I need to do to be successful in those careers once I complete college.”

Carrie — student at Fort Sumner

THE AGILITY TO INNOVATE

Starting an innovative enterprise such as Growing Green and creating a new Marketing Career Cluster option for students required resources. On one hand, funding was required to make the necessary improvements needed to expand production in the greenhouse, set up a storefront, and access the technology needed to operate a business. On the other hand, launching a commercial greenhouse facility and starting a business enterprise also required non-financial resources, such as professional development, research, direction, and guidance.



Securing the funding required to improve the greenhouse and launch the business plan was a two-year quest that required Superintendent Miller to seek out multiple local, state and national funding and in-kind opportunities. Once the plan was in place, Mrs. Miller used it to market the opportunity to potential funders. She began seeking funding by leveraging existing relationships in the community and county. For instance, she approached the De Baca County Soil and Water Conservation District to seek funding for improvements to the greenhouse and a nearby irrigation ditch. This outreach effort resulted in a \$10,000 donation to improve the existing facilities.



As part of the process, Mrs. Miller also learned to engage her community partners, such as the Fort Sumner Community Development Corporation (FSCDC) and the De Baca County Commission, in reaching out to their networks within the state, such as the economic development councils and workforce development entities. Doing so yielded an extended network in which additional funding ideas and opportunities surfaced. For instance, through connections in this extended network, Mrs. Miller became aware of an opportunity to secure funds from the state legislature. After several months of concentrated efforts, she was able to secure a \$21,500 capital outlay appropriation from the 2007 state legislative session toward improvements to the school greenhouse.

Mrs. Miller also sought opportunities from the New Mexico Public Education Department (NMPED). For example, she was able to secure a \$2,500 parent and community involvement grant from the NMPED to host free community dinners to share progress on implementation of the plan. She also became aware of a unique partnership between Microsoft Partners in Learning, the New Mexico Office of the Governor, and the state Public Education Department to develop innovative education programs where technology was an appropriate solution. Fort Sumner applied for and participated in a three-year partnership that has provided not only funding to purchase necessary hardware, software, professional development materials and other learning materials to make Growing Green a viable educational opportunity, but business expertise from Microsoft to work with the district during implementation. With the in-kind support, state appropriations, Partners in Learning initiative, donated services and operating funds from the district, the Growing Green enterprise was launched for the 2008-09 academic year.



In addition to funding the start-up of an enterprise, the school also had to provide the teachers leading the program with the professional development and technical resources needed to be able to manage the endeavor and incorporate the new business enterprise into the curriculum. One of the first community resources to provide support to the project was NMSU-CES. Ms. Leigh Ann Marez, De Baca County program director, reflected on her motivation to help: "The belief is that, if the local schools can be part of this revitalization through implementing the school enterprise model for education, it benefits the community at large." NMSU-CES offered ongoing support and professional development for the teachers involved in the new enterprise. Through the cooperative extension service, the teachers leading the effort were able to access opportunities and experts to develop their knowledge of greenhouse and business management practices. Additionally, NMSU-CES provided ongoing technical support to teachers to help them troubleshoot technical issues that arose in the production of products sold through Growing Green. Having one point of contact with access to a variety of technical resources allowed teachers to obtain the technical knowledge they needed to manage the enterprise and incorporate it into their instruction.

PARTNERSHIPS THAT MAKE A DIFFERENCE

"I love it that something is happening, and that something is good. The excitement around town is the best I've ever seen it."

Floyd Wood — Fort Sumner Rotary Club



Collaboration is a key to the ongoing success of Growing Green and the development of a viable Marketing Career Cluster program of study. Mrs. Miller comments, "We have a culture of achievement in our community. When there is a need, everyone pitches in to create a solution." The school-based enterprise engages the community's spirit for achievement and enlivens a sincere desire to provide solutions for students and the village. Key community partners range from economic development entities to local government entities and student organizations to other local businesses.

Several community partners support the project through research, direction, and making important connections. For example, the FSCDC provides data to help analyze the economic conditions and demographics in De Baca county and connects the school to a variety of other funding sources, such as the local Workforce Training fund. The De Baca County Commission (DBCC) and the Village of Fort Sumner (VFS) provide connections to assist in workforce placement and the sale of the products. The partnership is certainly mutual; FSCDC, DBCC, and VFS are all responsible for economic development in the community, and Growing Green provides an opportunity to develop the community infrastructure as well as build demand for new locally marketed products and services.

Fort Sumner High School has a highly successful BPA student organization. The BPA organization plays a critical role in the everyday operation of the Growing Green enterprise. To help defray the costs of staffing the storefront and greenhouse, the BPA student organization volunteers students to work in all facets of the operation in return for a share of store profits. This partnership provides a fundraiser for the student organization and a steady staff of part-time labor for the store and greenhouse.

Local groups also provide advice and education to benefit the project. The De Baca Soil and Water Conservation District (DBSWCD) has a long-term partnership with Fort Sumner Municipal Schools. DBSWCD has been part of the project since committing the necessary funding to build the initial greenhouse. The DBSWCD continues its support by providing technical advice regarding upgrades to the greenhouse and improvements to a nearby irrigation ditch, which allowed for expansion of the area in which the greenhouse was able to grow products. Additionally, the De Baca County Extension Office facilitates access to greenhouse and horticulture specialists from New Mexico State University.

Community members and businesses are a valuable asset in this endeavor. Members of local community organizations volunteer at the store and greenhouse on the weekend and in the evenings. A number of senior citizens provide personal resources, such as starting vegetable seedlings in their homes and helping with the cost of advertisement in the local newspaper. Additionally, there is collaboration with a local feed store that supplies much of the soil and an additional storage building and freight car. Another partner, Eastern New Mexico Rural Telephone Cooperative, provides free DSL and wireless access at the store.



KEYS TO INTEGRATING NEW INITIATIVES

Connect to community: Identify how the initiative addresses a community's identified need, and connect community leaders to the idea in the planning stages to generate further ideas.

Tie into strategic and improvement plans: Recognize the opportunity to use the initiative to advance a strategic or school improvement goal. Minor modification or supplements may be required but will be well worth the effort to show progress on key goals.

Engage teachers in identifying opportunities: When presented the vision for the initiative, many great teachers will be able to think of ways to leverage the project to improve their curriculum and classroom experience.

Invest in school counseling efforts: A new initiative can have unexpected impacts on how students choose courses and identify educational goals. Work with school counselors to discuss ideas to prepare for the changes.



TECHNOLOGY FOR 21ST CENTURY LEARNING

Technology is transforming the Growing Green business plan into a thriving school-based enterprise. Recent upgrades to the greenhouse heating and cooling systems include new digital control panels. These panels monitor and automate the internal climate. This control has significantly reduced the costs associated with maintaining the greenhouse while production for the new venture ramped up.

Technology also influences the downtown storefront and overall business management. For example, students use programs from the 2007 Microsoft Office system, such as Microsoft Excel and Access, to manage store sales figures and inventory. The school also recently purchased an inventory system that provides students with access to business solutions implemented by a number of small businesses. Students are developing a Web site to create new marketing opportunities for the products. Students also use Zune players, portable digital media devices provided to each student through a federal grant, to receive and review on-demand instructional media on topics ranging from preparing seedbeds to creating formulas in a Microsoft database. Additionally, students document the progress on Growing Green's development using both video and digital imagery processes.

Technology is also core to the future of the Growing Green enterprise. The initial business plan identified opportunities to expand Growing Green through the implementation of green technologies. For example, the school is working to identify and secure a small biomass-processing unit to heat the greenhouse using recycled energy. Additionally, students in math courses are using technology to research and identify packaging that will enable the school to ship Growing Green products sold online.

"My students are going to have an advantage when they seek careers because they have had the chance to work with modern technologies and up-to-date software."

Sharon West — instructor

ENACTING CHANGE IN THE REAL WORLD



Building a new program of study for students and implementing a school-based enterprise has been a challenging and rewarding effort for everyone involved. As with any large initiative, obstacles have emerged, and solutions have been generated to deal with them.

Staffing

Maintaining the greenhouse and the downtown store has been a challenge without a full-time staff. Currently, two teachers have been sharing the load of managing the greenhouse, and one teacher has been overseeing the downtown storefront. However, this work has been in addition to their regular responsibilities and courses. As a start-up, the business has had a small profit margin; thus, funds to hire a community member to manage both have not been available. To work around this issue, the school applied for and received grant funds from the Youth Conservation Corps and a local Workforce Training fund. These funds provided a recent graduate from Fort Sumner the opportunity to gain additional experience in a marketing-related career, establish herself within the community and continue to pursue a bachelor's degree through online coursework at Eastern New Mexico University. The school has been applying for additional funding through the same program and has been seeking a community member to serve as a full-time person to manage the greenhouse operation.



Beyond the one paid employee, Growing Green has relied on volunteers in the local community to sustain operations. An interesting challenge in this area has been providing background checks and supervision for these adult volunteers without offending them. This precaution has been necessary since the volunteers have access to students. The three teachers on the implementation team found that it is helpful to hold a brief orientation with volunteers to explain the purpose and goals of the venture and to outline the background check process.

Store Visibility and Space

Finding a viable space to market the product was difficult. Initially, product was sold directly out of the greenhouse on campus. Over time, this location became a challenge. In particular, customers in the greenhouse created disruptions when the greenhouse was in use by a class, the gravel floors in the greenhouse were a potential liability hazard and the greenhouse location on campus made for low visibility to potential customers. To resolve these issues, the teachers and Mrs. Miller sought to secure another place to market the product. The teachers approached the owner of a vacant storefront in downtown Fort Sumner. The business owner reviewed the business plan and offered the school use of the space in exchange for their labor in making necessary upgrades to be able to operate a business out of the space again. The school is able to use the storefront rent-free as long as they pay utilities and maintain the store. As part of the operating budget, the school allocates a portion of store sales to cover the cost of utilities.

Supplies and Process Improvement

Securing the potting supplies needed for growing and displaying plants in the store was and remains a challenge. To reduce costs, the teaching team lobbied administrators for a kiln so students could make their own pots. The teachers believed that making the potting supplies would result in a significant savings for the operation. The administration secured a kiln, and the teachers installed it for use in the greenhouse; however, the kiln failed a regular building code inspection. Neither the teachers nor the administrators anticipated that the kiln required certain building and architectural modifications to comply with building code. In the end, the teachers postponed the use of the kiln until the necessary facilities could be built. As an interim solution, teachers worked with their classes to identify other potting material options. One team of students identified a potting material made from lightweight concrete and vermiculite. Teachers ordered a small amount of the material and engaged students in evaluating the utility of the material from multiple business angles. Turning the project over to the students yielded a valuable learning opportunity and provided an avenue to research the option before making any further investments.

Marketing to a Limited Audience

Fort Sumner and the surrounding community are very small. From the very beginning of the endeavor, critics of the project questioned the project's ability to maintain a steady stream of business with a limited customer base. To mitigate this concern, the original business plan indicated the development of an e-commerce Web site to market the product beyond Fort Sumner. However, the e-commerce site has been and remains an unresolved challenge. First, securing the resources needed to ship the product has proven to be difficult with a tight cash flow. Additionally, securing access to an e-commerce system has proven difficult and time-consuming. In light of the challenges, students and teachers have decided to focus on marketing products locally. To do this, they have held events such as a monthly open house at the store front, Saturday morning workshops for local children at either the storefront or in the greenhouse, inviting local artisans to sell other products in the Growing Green storefront and creating holiday gift baskets and seasonal promotions. Mrs. Miller commented, "We've learned that it's okay if not every idea is a home run. Making adjustments to a plan in light of the situation is a real-world lesson that students will take with them for life."

Purchasing

Ramping up production in a greenhouse and setting up a storefront to sell products has required ongoing purchases of equipment and supplies. At Fort Sumner, the policy for obtaining supplies has required teachers to obtain a purchase order prior to making the purchase. Due to the frequency and quantity of items purchased for the Growing Green venture, these tasks have added additional time and paperwork, which has slowed production and created inventory problems at the store. To solve this problem, the teaching team manages a separate operating account for the store and greenhouse. Doing so offers them the flexibility to access a credit/debit card that streamlined the purchasing process. Having one account also offered greater ease in tracking all transactions for the business enterprise.



KEY ISSUES TO SUSTAINING INNOVATION

“Not every idea in the initial plan is going to be a home run. It’s important to create an environment where teachers and students can take risks.”

Patricia Miller, superintendent

Growing Green and the new program of study at Fort Sumner High School are producing valuable opportunities for students and the community. Sustaining this initiative requires planning and commitment.

Prepare and Use a Business Plan

The process of conducting the initial feasibility study and preparing the business plan took 18 months to complete, yet allowed the team at Fort Sumner to explore a number of options before building a new program of study related to economic opportunities in the community. Mrs. Fikany, career exploration instructor, said, “The business planning process presented us with options we wouldn’t have thought of on our own. We had to scale back the ideas and consider which ones were within reach.”

Engage Community Partners

Community partnerships have been a hallmark of the project in Fort Sumner. Building a new program of study and a new business enterprise in the community started with a series of “community conversations” or public forums that engaged community members and school staff. These conversations led to important partnerships that shaped the development of this unique program. Fort Sumner recognized the importance and value these partners can bring to planning for and implementing new initiatives. From day one, the community has had input and ownership of the plan.

Allow Room to Experiment and Adjust the Plan

Sustaining innovation has required flexibility. Superintendent Miller reflected, “Not every idea in the initial plan is going to be a home run. It’s important to create an environment where teachers and students can take risks.” Mrs. Miller suggested that it is highly important to give the teachers who are implementing the plan enough flexibility and ownership of the plan to come forward with needed adjustments when the initial plan simply will not work. Two examples that highlighted the role of experimenting to find solutions and making necessary adjustments to initial plans included identifying a low-cost material for potting and putting the e-commerce site on hold. Mrs. Fikany, an instructor at Fort Sumner, said, “We were fortunate to work with Microsoft as a partner and be told to dream big; don’t be afraid to ask for what you need. That approach has played a large role in our success.”

Generate and Sustain Buy-In

Mrs. Miller said, “You cannot just put up the greenhouse or open the storefront and expect it to work. You have to staff it with passionate people who are willing to put in the hours.” Fort Sumner has been fortunate to have a team of teaching staff and administrators who have been committed to the success of this endeavor. Mrs. West added, “Students’ buy-in is also a key. Students appreciate having some real-world incentives for putting in their time as part of this venture.” Fort Sumner has built a number of ways for students to benefit from the time they spend in the workplace learning component of the new program of study, including earning graduation credits, receiving a paycheck, and meeting volunteerism requirements.

Sustained Leadership

A strength of the Growing Green in Fort Sumner venture is the presence of strong and sustained leadership. Superintendent Miller provided leadership during the creation and marketing of the initial vision for the school based enterprise. Throughout the process, she gradually released ownership of the vision to a small implementation team on her teaching staff. Doing so developed a core team of individuals who share in the vision and remain committed to the project as lead the implementation.



Find additional guides from this series at:
www.careerclusters.org/publications.php
or
www.microsoft.com/education/uspil/downloads/

RESOURCES TO ENACT CHANGE

The following are free resources available from the States' Career Clusters Initiative.

Career Clusters Brochures

These brochures provide a an overview of the careers and fields of study in the career cluster. Each brochure discusses employment outlook and encourages students to prepare for both college and career by exploring career clusters of interest and establish an educational plan.

<http://www.careerclusters.org/resources/web/16ccall.php?action=brochures>

Sample Plans of Study

The sample plans of study can be used by schools to identify the academic courses, CTE courses, and other experiences or activities that can contribute to careers in a pathway. The plans of study become excellent guidance and planning tools.

<http://www.careerclusters.org/resources/web/pos.cfm>

Critical Components for Implementation of Career Clusters - Local Rubric

Those school systems successfully implementing Career Clusters have identified 15 critical components for success. This rubric helps school leaders evaluate progress in implementing Career Clusters and establish objectives for further development.

<http://www.careerclusters.org/publications.php>

Knowledge and Skills Charts

What are the learning outcomes expected for careers in each area? National advisory committees have developed and maintained Knowledge and Skills Charts for each of the 16 Career Clusters and 79 Career Pathways. Each chart identifies the knowledge and skills common to all careers in that cluster/pathway.

<http://www.careerclusters.org/resources/web/ks.php>

Student Career Interest Survey

Looking for a career guidance tool that allows individuals to respond to questions and identify the top three Career Clusters of interest based on their responses? This pencil/paper survey takes about fifteen minutes to complete and can be used in the classroom or for presentations with student audiences.

<http://www.careerclusters.org/ccinterestsurvey.php>





Microsoft Corporation, through US Partners in Learning, MS Research, and other programs has developed free tools and resources to support education.

Career Forward

Career Forward. Is an online, emotionally-engaging, media rich course that can be used in the classroom or as a stand-alone. It helps students understand the importance of competing in a global economy.

<http://nroc.careerforward.org/careerforward/>

Partners in Learning Network

To help administrators and teachers connect with their peers and find trainings and resources to support their work, encourage them to sign-on to the PILN – a community and resource site that encourages and fosters collaboration.

<http://www.us.partnersinlearningnetwork.com>

Establishing Public/Private Partnerships

States, districts, and schools all agree that the private sector can help think through cost efficiencies and understand how to leverage business expertise. This paper describes how to form successful education/ business partnerships and get the most out of the relationship.

<http://www.microsoft.com/education/public.mspix>

Scale Online Tutorial

The best way to save money is to offer existing programs to more students without increasing costs. This is thought of as “scaling up success.” This planning tool walks through the process of scaling an existing program across schools, districts, and even states.

<http://www.microsoft.com/education/demos/scale/index.html>

Education Competency Wheel

How much time and money does your HR office spend on hiring, training, incentives, and recruiting systems? This competency wheel offsets these costs by outlining four professional proficiency levels for each of the 37 competencies and self-assessment guides to measure professional ability.

<http://www.microsoft.com/education/competencies/default.mspix>

Digital Citizenship and Creative Content

Intellectual Property is a critical 21st century issue we all face. Help students understand creative rights and how to be good digital citizens with this online curriculum.

<http://www.digitalcitizenshiped.com/>

Digital Literacy Curriculum

Digital skills are the key to 21st century jobs. Offer skill development to your students by pointing them to this outstanding curriculum. From using the Internet, to sending e-mail, this curriculum helps you develop the essential skills you need to begin computing with confidence.

<http://www.microsoft.com/about/corporatecitizenship/citizenship/giving/programs/up/digitalliteracy/default.mspix>

Channel 8

Channel 8 is THE place to be for STUDENTS who want to code, connect and create technology. Stay plugged into tech news and share in the experience with students around the world.

<http://channel8.msdn.com/>

Elevate America

Microsoft is committed to strengthening the U.S. economy and increasing global competitiveness by improving access to education and workforce-readiness skills required for twenty-first century jobs. Elevate America is an initiative designed to provide 1 million vouchers for Microsoft E-Learning courses and select Microsoft Certification exams at no cost to recipients.

<http://www.microsoft.com/about/corporatecitizenship/us/communityinvestment/elevateamerica.aspx>

SAMPLE PLAN OF STUDY

This sample plan of study shows the courses suggested for a student interested in the Marketing Career Cluster. The plan emphasizes college preparation and career-related courses and activities that position the student for success in the marketing field. The marketing plan of study at Fort Sumner follows this national sample. As the program grows, more programs of study may be added for specific pathways in the marketing career cluster.

To download this sample in either PDF or Microsoft Excel[®] format, visit www.careerclusters.org/resources/web/pos.cfm. Sample plans of study for all 16 Career Clusters and 79 pathways are available.

SAMPLE



Name _____
 Learner ID _____
 School/College/University _____

Marketing, Sales and Service

Career Cluster Plan of Study for ► Learners ► Parents ► Counselors ► Teachers/Faculty

This Career Cluster Plan of Study (based on the Marketing, Sales and Service Career Cluster) can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. *This Plan of Study, used for learners at an educational institution, should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.

EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/ or Degree Major Courses for Marketing, Sales and Service	SAMPLE Occupations Relating to This Career Cluster
Interest Inventory Administered and Plan of Study Initiated for all Learners								
SECONDARY	9	English/ Language Arts I	Algebra I or Geometry	Earth or Life or Physical Science or Biology	State History Geography	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Certain local student organization activities are also important including public speaking, record keeping and work-based experiences.	** <i>Business Essentials</i> <i>Business Technology Applications</i> <i>Marketing</i> Continue courses pertinent to the pathway selected.	<ul style="list-style-type: none"> ► Copywriter/Designer ► E-Commerce Director ► Entrepreneur ► Field Marketing Representative ► Forecasting Manager ► Interactive Media Specialist ► Inventory Manager/Analyst ► Logistics Manager ► Merchandise Buyer ► On-line Market Researcher ► Public Relations Manager ► Promotions Manager ► Retail Marketing Coordinator ► Sales Executive ► Shipping/Receiving Clerk ► Telemarketer ► Trade Show Manager ► Warehouse Manager ► Webmaster
	10	English/ Language Arts II	Geometry or Algebra II	Biology or Chemistry	U.S. History			
	11	English/ Language Arts III	Pre-Calculus or Algebra II	Chemistry or Physics	World History Psychology			
	College Placement Assessments-Academic/Career Advisement Provided							
	12	English/ Language Arts IV	Pre-Calculus or Calculus or Trigonometry or Statistics	Physics or other science course	Government Economics			
Articulation/Dual Credit Transcribed-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.								
POSTSECONDARY	Year 13	English Composition English Literature	Algebra or Calculus	Lab Science	Economics Psychology	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include.	Continue courses pertinent to the pathway selected.	
	Year 14	Speech/ Oral Communication Technical Writing			Sociology Public Policy			
	Year 15	Continue courses in the area of specialization.						
	Year 16							

**See course descriptions on page 2.



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SAMPLE



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<http://www.microsoft.com/education/uspil/default.aspx>