

DYS Future Ready Initiative Vocational Curricular and Programing Highlights

DYS is committed to personalizing learning for all youth and this goal extends to the varied vocational curriculum tools and learning opportunities we offer to students so they may become “Future Ready” as they prepare to transition from DHS and further their education or enter a career. Students have multiple opportunities to participate in Future Ready and vocational activities where they can apply the skills they learn in the classroom.

Exploring the following technical skills training curricular resources, students use the process of inquiry to help them develop technical STEM skills, creativity and innovation, effective communication and collaboration, problem solving, and critical thinking.

All DHS teachers received training in Breakout EDU, Coding, Engineering Challenge, Littlebits, and Robotics last fall and are now implementing these resources in their classrooms to apply and reinforce STEM instruction.

- **Breakout EDU:** An educational and collaborative platform where players use teamwork and critical thinking to solve a series of challenging puzzles in order to open the locked box. There are also digital breakouts that use similar principles in a digital environment.
- **Coding:** Computer science—coding in particular—is a highly sought skill applicable in IT and STEM related jobs. Learning to code provides students a skill that will open career opportunities in the future workforce in well-paying jobs.
- **Engineering Challenge:** Offers students the opportunity to use STEM skills to design, build, assess, and evaluate processes and products outcomes.
- **Littlebits:** Using these easy-to-use electronic blocks students create with electronics, independent of age, gender or technical ability. Students are encouraged to be creative, confident and curious and always ask why using the process of inquiry to solve real-world problems when there isn't a clear right answer.
- **Robotics:** Programs such as LEGO MINDSTORMS EV3 make it easy to bring hands-on learning and real-world problem solving into lessons. Students can work with hardware and software while experiencing both the design and debugging process. Collaborating with classmates and teachers, students are encouraged to ask "what if" and “why not” questions and try more advanced programming concepts such as loops, conditional statements, and variables of different data types which are well suited for advanced high school level STEM classrooms.

Regional vocational programming: Another access point for DHS youth to participate in technical skills training, each region offers hands-on vocational opportunities. Below are brief descriptions of some of current offerings:

- **Metro and Northeast Regions--C-TECH (Network Cabling):** In this technical skills training program, students master the basics of copper cabling, installation, construction, and troubleshooting using patented workstations. Up-to-date industry standards and real-world workplace simulations are also a large part of the curriculum.

Central and Western Regions--Horticulture

- **Central:** Supported by the NGSS standards, students participate in a hands-on experience while learning about biology, earth and plant science, agriculture, small business skills, and product engineering and development. As a social enterprise, students sell holiday wreaths, seasonal plants, lotions, lip balm, and hand lotion. They also offer soil testing and analysis.
- **Western:** Supported by the NGSS standards, students have access to an onsite greenhouse where they learn fundamental earth science, plant biology, ecosystems, soil biology and the social justice aspect of food including recycling, food deserts, healthy eating, earth health and climate change and how they connect to responsible growing and eating of sustainable food.

Northeast Region--Carpentry, Furniture Building, and Woodworking

Students in the Northeast use STEM and vocational standards related to carpentry and construction to plan and build various wood products such as toy boxes, Adirondack chairs, bird houses, and memory boxes for family members. Recently, students participated in a community service project and build children's step stools for a local elementary school classroom.

Western Region--Culinary Arts and Silk Screen Social Enterprise

- **“Sandobo’s Kitchen” Culinary Arts Program:** The culinary arts program focuses on preparing students to master successfully the basic tasks involved in becoming an entry-level professional in the field of culinary arts. This course introduces students to the foodservice industry; students are required to complete the ServSafe Food Handler Certification while they participate in this course.
- **Silk Screen Social Enterprise**
 - Website: www.exclusivetees.org
 - Facebook: www.facebook.com/exclusiveteescommcorp

Southeast Region - Example of personalized learning opportunity

- **ISSA Personal Trainer Certificate:** As requested based on career interest, the Certified Fitness Trainer program equips graduates with the practical day-to-day skills and the theoretical knowledge needed to excel as a personal trainer. Along with the necessary exercise science foundation, this distance education program covers client assessment, program design, basic nutrition, and sports medicine along with business and marketing skills.

Online Vocational Training

To complement the technical skills training activities in which youth participate, they can also take online vocational certification courses. These course are available to students in all regions. A brief description of these courses follows:

OSHA 10-Hour Training - CareerSafe is an authorized provider of the online OSHA 10-Hour training courses. Any individual that successfully completes one of the training courses will receive the industry recognized credential of the OSHA 10-Hour wallet card.

- **OSHA 10-Hour General Industry Training**
The OSHA Outreach Training Program for General Industry provides training for entry level workers and employers on the recognition, avoidance, abatement, and prevention of safety and

health hazards in workplaces in general industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights.

- **OSHA 10-Hour Construction Industry Training**

The OSHA Outreach Training Program for the Construction Industry provides training for entry level workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in the construction industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights.

- **OSHA 10-Hour General Industry Training (Agriculture)**

The OSHA 10-Hour General Industry (Agriculture) training course provides training for entry level workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in agriculture industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights.

- **OSHA 10-Hour General Industry Training (Healthcare)**

The OSHA 10-Hour General Industry (Healthcare) training course provides training for entry level workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in healthcare industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights.

All Regions: ServSafe Certification

SERVSAFE® is an accredited food and beverage safety training and certificate program administered by the National Restaurant Association. Currently, the following courses are offered: 6th Edition Food Handler® Online Course and the ServSafe Food Handler Online Course delivers comprehensive and consistent food safety training. This course is open to all DYS youth. The five sections are Basic Food Safety, Personal Hygiene, Cross-contamination and Allergens, Time and Temperature, and Cleaning and Sanitation. The following online courses are offered:

- **ServSafe® Manager Online Course:** Enrollment is only possible if there can be a certified Servsafe Proctor identified to administer the Servsafe Food Manager Exam Students can earn the ServSafe Food Protection Manager Certification, accredited by the American National Standards Institute (ANSI)-Conference for Food Protection (CFP). The program blends the latest FDA Food Code, food safety research and years of food sanitation training experience. Managers learn to implement essential food safety practices and create a culture of food safety. All content and materials are based on actual job tasks identified by foodservice industry experts. This course is open to youth who are interested in food service careers, and who have completed the Food Handler course. This course requires Regional Education Coordinator and Coordinator for Student Services and Postsecondary Program approval.
- **SERVSAFE® Allergens:** The Massachusetts Allergen Training program consists of a 12-part training video, developed and created by the Food Allergy and Anaphylaxis Network (FAAN) to meet the terms outlined in the Massachusetts Food Allergy Awareness Act. This act requires any establishment that cooks, serves or prepares food to have a Food Protection Manager on staff

that has been certified by an allergen training program recognized by the Massachusetts Department of Public Health. The course contains information on the various types of food allergies. It also covers the consequences of cross-contamination, the importance of labeling and the precautions necessary when serving a guest with food allergies.

Examples of program-based vocational opportunities:

- **All Regions: First Aid/CPR Certification** (as requested)
First Aid teaches students how to provide assistance in times of crisis and gain an understanding of first aid best practices for a wide range of conditions such as heart attack and stroke, choking, external bleeding, and neck and spinal injury. Students can also study to achieve their Cardiopulmonary resuscitation (CPR) certificate.
- **All Regions: Briggs and Stratton Small Engine Repair**
The Small Engine vocational curriculum is designed to introduce youth to the Future Ready vocational and transferrable skills involved in disassembling and reassembling small engines for repair. These vocational kits come with a supporting curriculum resources for use in the classroom. One engine has been deployed to each region.
- **Metro and Western Regions: Facilities Maintenance**
Facilities maintenance prepares students to master the critical tasks involved in becoming a residential facilities worker. Using a practical, no-nonsense approach to maintenance, repair, and replacement, common maintenance tasks in the areas of carpentry, grounds keeping, painting, and some plumbing are addressed. Safety and important employability skills for success on the job are emphasized.
- **Central Region: 3D Printing**
Students employ STEM skills and learn how to design and print projects using a 3D printer. 3D printing enables the production of complex functional shapes using less material than traditional manufacturing methods.

Future Ready Universal Strategies across the continuum:

- College and Career Fairs
- Bunker Hill Online
- Empower Your Future (Career Exploration Seminar)
- Online college or career classes through Edgenuity
- Artist Residencies
- Bridging the Opportunity Gap
- Blended Learning
- Education and Career Counselors