Massachusetts Career Technical Education Strand One Framework

2014

# Strand 1: Safety and Health Knowledge and Skills

**1.A**  **Fundamentals of Health and Safety**

1.A.01 Describe and apply health and safety regulations.

1.A.01.01 Identify, describe and apply health and safety regulations that apply to specific tasks and jobs. Students must complete a safety credential program, e.g., Occupational Safety and Health Administration 10, CareerSafe and ServSafe.

1.A.01.02 Identify, describe and apply Environmental Protection Agency (EPA) and other environmental protection regulations that apply to specific tasks and jobs in the specific occupational area.

1.A.01.03 Identify, describe and apply Right-To-Know (Hazard Communication Policy) and other communicative regulations that apply to specific tasks and jobs in the specific occupational area.

1.A.01.04 Explain procedures for documenting and reporting hazards to appropriate authorities.

1.A.01.05 Identify and describe potential consequences for non-compliance with appropriate health and safety regulations.

1.A.01.06 Identify and list contact information for appropriate health and safety agencies and resources.

1. A.01 Performance Examples:

* List and define OSHA Health and Safety Regulations, EPA and other environmental protection regulations to occupational area.
* List and define Right-to-Know regulations and reporting of hazards and contact information for appropriate health and safety agencies.
* List the laws and rules of regulatory agencies governing sanitation and safety.
* Utilize OSHA as well as health and safety websites for purposes of research.

1.A.02 Demonstrate appropriate health and safety practices based on the specific occupational area.

1.A.02.01 Identify, describe and demonstrate the effective use of Safety Data Sheets (SDS).

1.A.02.02 Read and interpret chemical, product and equipment labels to determine appropriate health and safety considerations.

1.A.02.03 Identify, describe and demonstrate personal, shop and job site safety practices and procedures.

1.A.02.04 Demonstrate safe dress and use of relevant safety gear, personal protective equipment (PPE) and ergonomics, e.g., wrist rests, adjustable workspaces, equipment, gloves, proper footwear, earplugs, eye protection and breathing apparatus.

1.A.02.05 Demonstrate appropriate safe body mechanics, including appropriate lifting techniques and ergonomics.

1.A.02.06 Locate emergency equipment, first aid kit, SDS information directories and emergency action/response plan/escape routes in your lab, shop and classroom, including labels and signage that follow OSHA Hazard Communication Program (HAZCOM), eyewash stations, shower facilities,

sinks, fire extinguishers, fire blankets, telephone, master power switches and emergency exits.

1.A.02.07 Demonstrate the safe use, storage, and maintenance of every piece of equipment in the lab, shop and classroom, e.g., the OSHA Lockout/Tagout Program (LOTO).

1.A.02.08 Describe safety practices and procedures to be followed when working with and around electricity, e.g., ground fault circuit interrupter (GFCI) and frayed wiring.

1.A.02.09 Handle, store, dispose of and recycle hazardous, flammable and combustible materials, according to EPA, OSHA and product specifications.

1.A.02.10 Demonstrate appropriate workspace cleaning, sanitation, disinfection and sterilization procedures required in specific occupational areas, e.g., Workplace Housekeeping OSHA Regulations.

1. A.02 Performance Examples:

* Identify, describe and demonstrate the use of SDS.
* List and demonstrate shop dress code, safety procedures and location of emergency equipment in labor classroom.
* Define and demonstrate safe storage and maintenance of equipment and proper disposal or recycling of hazardous, flammable and combustible materials.
* Identify, describe and demonstrate the Universal Precautions set of guidelines.

1.A.03 Demonstrate appropriate responses to situations that may threaten health and safety. 1.A.03.01 Describe First Aid procedures for potential injuries and other health concerns in the specific occupational area.

1.A.03.02 Describe the importance of emergency preparedness and an emergency action/response plan.

1.A.03.03 Describe procedures used to handle emergency situations, defensive measures and accidents, including identification, reporting, response, evacuation plans and follow-up procedures.

1.A.03.04 Identify, describe and demonstrate safety practices in specific occupational areas used to avoid accidents.

1.A.03.05 Identify and describe fire protection, protection, precautions and response procedures.

1.A.03.06 Discuss the role of the individual and the company/organization in ensuring workplace safety including transportation to and from school, school activities and the workplace.

1.A.03.07 Discuss ways to identify, prevent and report school and workplace violence, discrimination, harassment and bullying.

1.A.03.08 Demonstrate positive and appropriate behavior that contributes to a safe and healthy environment in school and the workplace.

1. A.03 Performance Example:

* Define first aid procedures and protocols used to handle emergency situations and practices used to avoid accidents.
* View safety videos and discuss the role of workplace safety.
* Attend or participate in a human rights alliance organization presentation.
* Observe and/or demonstrate the appropriate use of a fire extinguisher using the (PASS) technique: Pull, Aim, Squeeze, Sweep.
* Review and discuss specific policies, procedures and protocols regarding discrimination, harassment and bullying.
* Discuss and/or role-play proper and respectful behavior that contributes to a positive climate.
* Discuss and/or demonstrate behavior that contributes to a collaborative/teamwork environment.

## *Selected Websites*

* Bullying Prevention and Intervention Resources : [www.doe.mass.edu/bullying](http://www.doe.mass.edu/bullying)
* Centers for Disease Control and Prevention: [www.cdc.gov](http://www.cdc.gov/)
* Environmental Protection Agency : [www.epa.gov](http://www.epa.gov/)
* “Lost Youth – Four Stories of Injured Young Workers”– WorkSafeBC: <http://www2.worksafebc.com/Publications/Multimedia/Videos.asp?reportid=34291>
* Massachusetts Department of Elementary and Secondary Education. (2011). Career/Vocational Technical Education Safety Guide: [www.doe.mass.edu/cte](http://www.doe.mass.edu/cte)
* Massachusetts Department of Elementary and Secondary Education: [www.doe.mass.edu](http://www.doe.mass.edu/)
* Massachusetts Emergency Management Agency: [www.mass.gov/eopss/agencies/mema](http://www.mass.gov/eopss/agencies/mema)
* Massachusetts General Law: [www.malegislature.gov](http://www.malegislature.gov/)
* Massachusetts Health and Human Services: [www.mass.gov/dph](http://www.mass.gov/dph)  Massachusetts Right to Know Law Summary:

<http://www.mass.gov/lwd/docs/dos/mwshp/hib397.pdf>

* Safety Data Sheet: [www.sdsonline.com](http://www.sdsonline.com/)
* National Fire Protection Association: [www.nfpa.org](http://www.nfpa.org/)
* Protection of Student Rights: Massachusetts General Law: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXII/Chapter76/Section5>
* Occupational Safety and Health Administration: [www.osha.gov](http://www.osha.gov/)
* Readiness and Emergency Management for Schools: [www.rems.ed.gov](http://www.rems.ed.gov/)
* Safe and Healthy Learning Environments: [www.doe.mass.edu/ssce/safety.html](http://www.doe.mass.edu/ssce/safety.html)