



**Georgia Department of Technical
and Adult Education**

Module 6

PRODUCTIVITY

WORK ETHICS MODULES

LESSON TITLE: Productivity

INTRODUCTION: Upon completion of this lesson, students/employees will adhere to classroom/workplace safety practices, conserve materials, keep their work area tidy, follow directions and procedures. The objectives listed below should be met.

OBJECTIVES:

- Follow safety practices
- Conserve materials
- Keep work area neat and clean
- Follow directions/procedures

EQUIPMENT AND MATERIALS:

Module 6 Productivity

MODULE OVERVIEW:

This module concentrates on teaching the student/employee to follow the proper work procedures, comply with safety regulations, and develop effective work habits.

A willingness to follow classroom and workplace procedures is vitally important to the success of the participant's experience.

Safety is everyone's job. Your classmates may participate in East Central Tech's Safety Committee or your fellow employees may be on the Safety Team at work, but no one is exempt from the responsibility.

Good work habits involve following rules and being safety conscious. This module will explore other good work habits that we should apply to our learning or working experience. One especially helpful effective work habit is the willingness to become an active member of the group and to participate when we have the opportunity. By participating in activities, we expand our horizons and expose ourselves to new and exciting things. Actively participating is the key to developing the habit of life-long learning.

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Follow Safety Practices

An important part of work ethics is following established safety practices. At our technical institute, each classroom or lab has safety procedures. The same will be true on the job. Each department in each company will have a set of safety guidelines to which employees should adhere.

These rules are not designed to punish the student or employee, but rather to protect them. Safety is always important and is everyone's responsibility. The failure to follow safety rules can result in a lost-time accident or even death.

When a company experiences a "lost-time accident" due to the minor injury of an employee, everyone is affected. Efficiency and profits will go down with each minute lost. Co-workers will see an immediate effect if they are paid on a group incentive plan and a team member is injured. The effect may not always be as direct and may not always be as evident, but the fact remains that everyone suffers with injury.

Following safety rules will not totally eliminate "lost-time accidents," but their numbers will be cut down.

Conserves Material

It's not your money that is going down the drain if you make a mistake and have to scrap part of the materials, is it? Think again—in the long term it may actually be your money or at least the continuation of your current paycheck.

One might say, "How will my employer ever miss the 500 sheets of paper and 100 staples that I wasted by duplicating the wrong information? That's not a lot of materials when you consider what we use every day!" Well, what would happen if your company has 100 employees and each one made a similar mistake? Or, what if we were talking about expensive chemicals instead of paper and staples?

Always use only the materials necessary to adequately complete your task. Treat the materials as if you were paying for them yourself. One of the best ways to cut down on scrap is to do the job right the first time and to always be conscientious. Scrap costs your company or your school money and decreases the profit margin. A decreased profit margin has a direct effect on employees because with less to go around, less will be given back to the employees.

Keeps Work Area Neat and Clean

As mentioned above, safety is everyone's job. So is housekeeping. Most technical institutes and employers employ a custodian or maintenance worker that will handle the heavy cleaning. However, each student and each employee is responsible for maintaining his or her own workspace. You may initially feel that with your busy schedule you do not have time to straighten up every day, but the fact is that you don't have time not to.

It only takes a few minutes each day if done correctly. We should not leave our workspace until our work areas are clear, all trash has been discarded, and our chairs and equipment are properly put away. Since you can never be sure who will walk into your work area, it is necessary to always keep it presentable.

Part of housekeeping is organizing and filing. If your information is filed in an orderly manner, you will not have to waste your valuable time looking for things that you misplace and will therefore be more productive and efficient in the long run.

Follows Directions/Procedures

It is important to read directions and procedures carefully before beginning a new task. It is equally important to consistently follow established procedures for the routine, mundane tasks that we perform each day.

The failure to follow directions can be disastrous. It can mean getting a bad mark on a test or it can mean the loss of a job.

Directions are developed by experts and are designed for our safety and expedience of work. Don't ever feel that you don't have to adhere to the prescribed steps and that you can do things your way.

MODULE 6

Productivity Activities

Suggested Activities For Module 6 PRODUCTIVITY

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Module 6 ■ Activity 1 ■ PRODUCTIVITY

Activity: Handout for Following Directions

Materials Needed: Handouts/Transparency: Following Directions

Directions: Distribute the "Follow These Directions" handout. Give students five minutes to complete the handout. If students properly follow directions they will read the entire sheet before making any marks on their paper. Upon completion of the reading part of the assignment, students who properly follow directions will simply write their names in the upper right hand corner of their papers.

Students that do not properly follow directions will have more marks on their papers, will wave to you, and will punch two small holes in their paper.

It will be obvious to the group which students did not properly follow directions. Re-emphasize the importance of following directions. Tell students that this particular exercise used humor to determine if they were following directions, but in real life failure to properly follow directions is no laughing matter.

**Time Required:
5 Minutes**

Follow These Directions!

1. Read all directions carefully before doing anything.
2. Put your name in the upper right-hand corner of this paper.
3. Circle the word "name" in Direction 2.
4. Draw three small circles in the lower left-hand corner of this page.
5. Put an "X" in each circle.
6. Write "yes, yes, yes" in the lower right-hand corner of this page.
7. Underline the number "2" in Direction 3.
8. Draw a rectangle around the word "three" in Direction 4.
9. If you think you have followed the directions carefully to this point, wave at the instructor.
10. In the space below, add the numbers 156 and 333.
11. Punch two small holes in the top of this paper with your pencil point.
12. Now that you have finished reading everything carefully, follow only directions 1 and 2.

Source: Work Matters, Workplace Skills—Following Directions.

Activity: Safety in the Classroom

Materials Needed: Handouts/Transparency: "Classroom Safety Rules"

Directions: Distribute the "Classroom Safety Rules" handout. Allow students to read the handout. In an open discussion, allow students to explain the importance of each safety item. Ask them for examples of what may happen if one fails to adhere to each of the safety items.

**Time Required:
5 Minutes**

Classroom Safety Rules

1. No running or horseplay in the classroom.
2. Report any burning odor to the teacher.
3. Report any malfunctioning equipment to the teacher.
4. Report any spills on the floor or near equipment.
5. Do not attempt to repair any equipment yourself—notify the instructor.
6. Do not attempt to lift any heavy objects—call for assistance.
7. Watch out for cables and electrical cords in the classroom.
8. Do not overload outlets or extension cords.
9. Report any frayed or damaged electrical cords in the classroom.
10. Be careful that jewelry, scarves, hair, or neckties do not get caught in the equipment.

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Activity: General Safety Procedures

Materials Needed: Handouts/Transparency: "Overview: General Safety Procedures"

Directions: Distribute the "Overview: General Safety Procedures Handout." Allow 15 minutes for students to read the outline. In an instructor-led discussion, stress the importance of being aware of and observing general safety procedures. Ask students if they have further questions or if they would like to address some of the issues. Show examples of color-coded safety signs and first-aid procedures if possible. (Activity 7 in this module is a possible follow-up for this activity and for Activity 4.)

**Time Required:
30 Minutes**

Overview: General Safety Procedures

- I. **General safety procedures**
 - A. **Safety attitude**
 1. A proper attitude is a must.
 2. Return all pieces of office equipment to their proper locations after use.
 3. Keep areas clean and free of safety hazards.
 4. Clean up any spilled liquids from floors, shelves and/or tables immediately.
 5. Do not sit or lean on tables.
 6. Keep all aisles, doorways, and areas around machines and equipment clean and clear of paper, boxes, and cords.
 7. Immediately report any unsafe condition to proper authorities.
 8. Do not get involved in any "horseplay."
 9. Remove dangling jewelry when operating equipment.
 10. Avoid touching and looking directly at light sources.
 11. Keep all filing drawers and desk drawers closed when not in use.
 12. Ask the supervisors when you are not sure how to operate equipment.
 13. Personal grooming affects safety.
 - B. **Keeping a safe and orderly working place**
 1. Arrange all equipment to permit safe and efficient operation.
 2. Keep materials and supplies safely stacked or stored.
 3. Keep all hand tools in proper storage area.

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4. Dispose of or store all chemicals in safe containers.
 5. Keep all floors clean and free from paper and spills at all times.
 6. Clean up daily.
- C. Storeroom safety precautions
1. If you have several small items to carry, either make several trips or get a dolly or carrier that will make it easier for you.
 2. Do not strain your back! Learn to lift things by using your leg muscles; and if something is absolutely too heavy, do not try lifting by yourself—call for help.
 3. Use a ladder wisely when handling items. Balance yourself carefully, and have someone steady the ladder while you do the moving or lifting.
 4. Arrange boxes on shelves so that the shelves do not bow in the center. If boxes must be stacked, put the lighter, smaller ones on top.
 5. Always use the proper equipment if you must move heavy furniture or file cabinets.
- D. Care of equipment
1. Care of equipment starts by caring for the area around it.
 - a. The work area must be kept clean and neat.
 - b. There should be enough space in the work area for correct machine operation.
 - c. No articles, furniture, or supplies should block operation of machine parts.
 2. Do not try to repair office equipment. When a piece of equipment is not operating properly:
 - a. Pull plug; turn the machine off.
 - b. Call the service repair-person.
 3. Use caution when plugging and unplugging electrical equipment.

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- a. Hold the electrical plug rather than the cord to plug or unplug machines.
 - b. Electrical cords should be checked to see if they are frayed, tangled, or damaged.
 - c. Electrical outlets must not be overloaded.
4. Turn off equipment when finished.
 5. Clean up any equipment used.
- E. Safety color code
1. Yellow designates:
 - a. Caution
 - b. Physical hazards

(EXAMPLES: Stumbling, falling, striking against low ceilings or other eye-level hazards)

2. Red designates:
 - a. Fire alarm boxes
 - b. Fire blankets
 - c. Fire buckets or pails
 - d. Fire extinguishers
 - e. Fire hose locations
3. Orange designates:
 - a. Dangerous parts of machines which may cut, crush, shock, or otherwise injure the operator.
 - b. Hazards when enclosure doors are open or when gear belts or other guards around moving equipment are opened or removed.
4. Green designates
 - a. Safety
 - b. Location of first aid equipment

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5. Blue designates caution and/or warning against the equipment being:
 - a. Started
 - b. Used
 - c. Moved while in the process of being repaired
6. Black, white, or combinations of black and white designates:
 - a. Traffic markings
 - b. Housekeeping markings

F. First safety rules and information

1. Practice fire prevention.
2. Find out what material is burning when a fire starts.
3. Report a fire quickly.
4. Know how to use a fire extinguisher.

(WARNING: DO NOT play with fire-fighting equipment because it may not work when you need it.)

5. Know the types of fire extinguishers.

(WARNING: Using the wrong type of extinguisher on a fire is dangerous.)

6. Know the location of the fire alarm or notify the office.
7. Know how to treat burns.
8. Keep a clean classroom with flammables stored properly.
9. Know the location of the nearest fire extinguisher.
10. Know the correct way to leave a building in case of fire.

G. First aid

1. Steps to be taken in case of an accident.
 - a. Turn off power.
 - b. Administer first aid

- (1) First aid is the immediate and temporary care given to the victim of an accident or sudden illness until the services of a physician can be obtained.
- (2) Generally, it is performed at the scene of an accident.
- (3) In the event of an accident, the person rendering aid should do the following important things.
 - (a) First, look for bleeding—bleeding from a major artery can kill a person in less than a minute.
 - (b) Next, check for breathing—respiration will normally be present if the heart operates sufficiently to produce severe bleeding.
 - (c) Keep the person lying down.
 - 1) Do not move or manipulate the injured person unnecessarily.
 - 2) Make the person as comfortable as possible.
 - (d) Keep the body temperature constant.
 - (e) Recognize and treat the types of burns.
 - 1) First degree—reddened skin; apply cold water.
 - 2) Second degree—blistered skin; apply cold water and sterile gauze.
 - 3) Third degree—charred or seared skin; get immediate medical help.
- c. Report all accidents and injuries.
- d. Take injured person to hospital emergency room.
2. Other emergency procedures
 - a. Heimlich maneuver
 - b. Cardiopulmonary resuscitation

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Activity: Safety Procedures

Materials Needed: Handouts/Transparency: "Overview: Accident Causes and Prevention"

Directions: Distribute the "Overview: Accident Causes and Prevention." Allow 20 minutes for students to read the outline. In an instructor-led discussion, stress the importance of recognizing the causes of accidents. Further explain the importance of using preventive measures. Ask students if they have further questions or if they would like to address some of the issues. (Activity 7 in this module is a possible follow-up for this activity and for Activity 3.)

**Time Required:
30 Minutes**

Overview: Accident Causes and Prevention

II. Accident causes and prevention

A. Accident statistics

- 1. Accidents are the fourth principal cause of death in the US, and the leading cause of death among persons from 1-38 years of age.**
 - a. Natural disasters such as floods, hurricanes, tornadoes, and earthquake account for a very small percentage of accidents.**
 - b. The majority of catastrophes are caused by some kind of human failure that may result in airplane or automobile crashes, mine cave-ins, explosions, and so on.**
- 2. Very few lives are lost in catastrophes in comparison to the total number of deaths resulting from other ordinary, unpublicized accidents.**
- 3. Cause of accidents**
 - a. "Horseplay"**
 - b. Inadequate lighting**
 - c. Undesirable location of equipment**
 - d. Low ceilings**
 - e. Unguarded belts, gears, pulleys, blades, cutters, etc.**
 - f. Failure to allow for adequate safety zones around equipment**
 - g. Improper type and location of switches**
 - h. Poorly located, constructed, and maintained storage**
 - i. Waste materials, stock supplies, or liquids on the floor**
 - j. Improperly maintained tools and equipment**
 - k. Improper use of tools and equipment**

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- l. Inadequately ventilated work areas**
- m. Failure to use proper protection equipment**
(EXAMPLE: Safety glasses)
- n. Failure to adhere to personal grooming standards as related to the operation of equipment and/or the use of tools**
(EXAMPLES: Loose clothing; dangling jewelry; long, loose hair)

B. Dangers of lightning

- 1. The average death toll for lightning is greater than for tornadoes or hurricanes; however, this fact is not publicized as much because hurricanes and tornadoes usually affect a larger area and cause more property damage.**
- 2. Do not use the telephone during an electrical storm. If lightning strikes a phone line, it can travel through the telephone.**
- 3. It is estimated that lightning strikes the earth 100 times each second.**
- 4. Lightning may contain as much as a half a million amperes of electricity.**
(FOR EXAMPLE: It can cause the sap in a tree to boil instantly and evaporate.)
- 5. The width of the average lightning bolt is about 1/2 to 1/3 of an inch thick, and is surrounded by 4 inch thick channel of super-heated air.**
- 6. The length of a strike may vary from 2,000 to 15,000 feet or more.**
- 7. Most victims are not struck directly.**
 - a. Those standing under a tree get only a small part of the current that passes through the tree and onto the surface of the ground.**

- b. The human body cannot tolerate more than a very small amount of electricity.
 - (1) A fraction of an ampere for one or two seconds can easily cause death.
 - (2) A high-voltage injury from a high-intensity electrical charge is almost always lethal.

- 8. It is important to turn off televisions, computers, and other devices that may attract lightning and cause damage to them.

- 9. Precautions about lightning.
 - a. Get inside a home or large building, or inside an all-metal (not convertible) vehicle. Turn off and disconnect major electrical appliances—televisions, computers, and so on.
 - b. Do not stand underneath a natural lightning rod, such as a tall tree, in an open area.
 - c. Avoid projecting above the surrounding landscape, such as on a hilltop or open field, on the beach, or when fishing from a small boat.
 - d. Get out of and away from open water such as pools, lakes, and ponds.
 - e. Get off and away from motorcycles, scooters, golf carts, and bicycles. Put down golf clubs and baseball bats.
 - f. Get away from tractors and other metal farm equipment.
 - g. Stay away from wire fences, clotheslines, metal pipes, rails, and other metallic paths which could carry lightning to you from some distance away.
 - h. In forests, seek shelter in a low area under a thick growth of small trees.
 - i. In open areas, go to a ravine or valley.
 - (1) If you feel your hair stand on end, drop to your knees.

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- (2) Do not lie flat on the ground.
- (3) This will minimize the danger of your body acting as a conductor.

10. Results of lightning hitting a person

- a. Sometimes only causes burns and tissue destruction.
- b. Serious effects are the loss of respiration and interference with the rhythmic beat of the heart.

C. Electricity

1. Electrical injuries constitute nearly 1,200 fatalities in the U.S. each year. These fatalities could be prevented if safety guidelines were followed.
2. Inadequate or damaged wiring is a major contributor to electrical hazards. Some indications of inadequate wiring are:
 - a. Lights dim when an appliance goes on.
 - b. Fuses blow or circuit breakers trip frequently.
 - c. Toasters and irons fail to heat properly.
 - d. Television picture fades.
 - e. Motors slow down.
3. Electrical burns
 - a. Electrical current passing through living tissue generates extreme heat.
 - (1) Injuries are worse than they appear outwardly.
 - (2) Wound may be deceptive because the skin hides the massive tissue damage.

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- b. Severe electrical burns occur when a person makes contact with an electrical source in situations such as:
 - (1) Linesmen contacting "hot" wires.
 - (2) Persons making contact with high-tension lines through machinery.
 - (3) Persons installing a television, CB radio, or other antennae.
 - (4) Hang gliders or balloonists falling into power lines.
 - (5) Children climbing power line poles.
 - (6) Being struck by lightning, or sticking pins or other metal objects into electrical outlets.
 - (7) Working on high voltage transformers—in televisions, computers, or other electrical equipment—without taking the proper precautions.
- 4. Misuse of electrical cords
 - a. Cords should be the proper type—large enough to carry the volts used.
 - b. Place cords out of the way where they will not cause falls or be exposed to excessive wear.
 - c. Do not twist or place cords near heat or in water.
 - d. Electrical outlets and cords should not be overloaded.
- 5. Six factors influencing the affect of electricity on the human body
 - a. The type of current
 - (1) Two types—alternating and direct.
 - (2) Alternating is more dangerous because it produces muscular spasms.

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- (3) Victim is unable to let go of the energized object and suffers a more serious injury.
 - (4) Direct current does not produce strong muscular contractions.
- b. The intensity or value of the current
- (1) Measured in milliamperes (amps).
 - (2) As the value increases, so does the severity of the injury. The effects of various current values range from:
 - a. A tingling sensation (1 milliamp)
 - b. A painful sensation (5 milliamps)
 - c. Asphyxia (30 milliamps)
 - d. Ventricular fibrillation (60 milliamps)
 - (3) Fifteen milliamps is known as the "let-go-current" or the maximum value or current from which a victim can manage to release his grip on the energized object.
 - (4) Current causes severe spasms of muscles and prevents the victim from releasing a source of electricity.
- c. The voltage or force of the current
- (1) The force of the current is the voltage.
 - (2) Two kinds:
 - (a) Low voltage—10,000 or fewer volts
 - (b) High tension—over 10,000 volts

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- (3) The greater the voltage, the more extensive the injury.
 - d. The resistance of the body
 - (1) Resistance is caused by the skin at the point of contact and internal resistance of firm tissues.
 - (2) After entering the body the current travels along the path of least resistance, usually nerves and blood vessels.
 - e. The pathway of the current—if the pathway does not include vital organs—heart, lungs, brain, kidneys, the injury is less likely to be fatal.
 - f. The duration of contact
 - (1) Affects the outcome of the injury.
 - (2) The longer the duration of contact, the greater the damage.
- D. Fire safety
 - 1. Fires kill about 6,000 people in the United States each year.
 - 2. Fires need three ingredients to burn:
 - a. Fuel
 - (1) Every fuel has its own "ignition temperature"—the temperature to which the fuel must be heated in order for its vapors to combine with oxygen and start to burn.
 - (2) Solid fuels do not produce vapors until they are heated to their ignition temperature.
 - b. Oxygen
 - (1) When vapors are given off and combine with oxygen, burning begins.

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- (2) Ignition points of some solids are:
 - (a) Cotton sheets—454 degrees F
 - (b) Paper—around 450 degrees F
 - (c) Wood—about 500 degrees F
 - (d) Match flame—2,000 degrees F
 - (e) An electric arc (caused by 2 exposed, crossed electrical wires) has an ignition point of 2,000 degrees F.

c. Heat

- (1) Burning begins when heat is high enough to ignite the vapors of a fuel.
- (2) Heat warms other fuels in the area to their ignition temperatures, and they begin to burn as well.
- (3) As fire grows, it can produce so much heat that it even heats fuels that are beyond range of the fire.

3. Fire victims

- a. Most die by inhaling smoke or toxic gases before the flames have reached them.
- b. A person caught in a burning building has between a few seconds and an hour to escape, to reach an area of refuge, or to be rescued.
- c. Temperatures of about 300 degrees F can cause death in minutes.
 - (1) Air temperatures near the ceiling of a burning room can reach 1,000 degrees F or more.

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- (2) That is why it is important to stay near the floor in order to escape from a fire.

4. Fire Safety Rules

a. General rules

- (1) Practice fire prevention.
- (2) Keep a clean work area with flammable materials stored properly.
- (3) Find out what material is burning when a fire starts.

b. Types of Fires

- (1) Class A—ordinary combustibles, such as wood, paper, or cloth
- (2) Class B—flammable liquids or grease, such as gasoline, paints, or oils
- (3) Class C—Electrical equipment, such as motors and switches

c. Types of fire extinguishers and their characteristics

- (1) Multi-purpose dry chemical
 - a. Selected dry chemicals under pressure
 - b. Can be used safely on all classes of fire
- (2) Ordinary dry chemical
 - (a) Selected dry chemicals under pressure
 - (b) Used only for Class B and Class C fires

- (3) Foam
 - (a) A solution of aluminum sulfate
 - (b) Used for Class A and Class B fires
 - (4) Carbon dioxide
 - (a) Carbon dioxide gas under pressure
 - (b) Used for Class B and Class C fires
 - (5) Soda acid
 - (a) Bicarbonate of soda and sulfuric acid
 - (b) Can be used safely only on Class A fires
- d. Being prepared for a fire in the hotel or office.
- (1) Know where the fire exits are located wherever you are—hotels, theaters, or auditoriums. Count the number of doors between your room and those exits.
 - (2) Open the exit door—know what is beyond.
 - (3) Know the layout of your room.
 - (a) Do the windows open? How?
 - (b) What lies outside the window?
 - (c) Is there an air vent in the bathrooms?
 - (4) Know where your room key is at all times.
 - (5) Find the nearest fire alarm.
- e. What to do in case of fire.
- (1) If a fire starts in your room:

- (a) Call the operator
 - (b) Leave the room
 - (c) Close the door behind you
 - (d) Do not try to put out the fire unless you are confident you will be able to do so.
 - (e) Set off the alarm to alert your neighbors.
- (2) If the fire starts somewhere else, you will probably be alerted by a phone call, noise in the hall, an alarm, or smoke.
- (a) Grab your room key—go to the door—crawl out if there is smoke in the room.
 - (b) Feel the door with the palm of your hand.
 - (1) If the door or doorknob is hot, do not leave the room.
 - (c) Protect yourself in your room (see below).
 - (d) Open the door slowly—however, shut it quickly if the smoke is too dense.
 - (e) If you are able to leave your room, close the door behind you.
 - (f) If there is no smoke, walk to the exit.
 - (g) If there is smoke, crawl to the exit—stay on the same side of the hall as the exit, counting doors as you go. It is important to stay oriented as to where you are.
 - (h) If the first exit is blocked by heavy smoke or fire, go to an alternate exit.

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- (i) When you reach the exit, remember to close it behind you.
 - (j) Walk down to the ground floor, holding the handrail securely.
 - (k) Exit at ground level, and leave the building.
 - (l) When going downstairs, if you run into heavy smoke, turn around and go up.
 - 1) Do not go through smoke in the stairwell.
 - 2) Exit on the roof, if possible.
- f. Protecting yourself in your room.
- (1) If you can open the window, and need the air, do so.
 - (a) Keep an eye on what is happening outside.
 - (b) However, close the window if flames or smoke develop.
 - (2) Call the hotel operator to inform rescue workers that you are in your room. Hang a sheet out of the window if the phone is not working.
 - (3) If you need ventilation and the hotel window does not open:
 - (a) Break the window cautiously, avoiding cutting yourself.
 - (b) Remember, you will have no way of closing it again.

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- (4) Turn on the air vent in the bathroom.
- (5) Fill the tub with water.
- (6) Line the cracks around the doors with wet towels.
- (7) If there is fire outside the window, pull down the drapes, move everything combustible away from the window, and throw water around the window.
- (8) Clear smoke by swinging a wet towel.
- (9) A wet towel over your nose and mouth provides an effective filter for smoke.
- (10) Keep everything wet.
- (11) Don't panic.

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Activity: Safety Misconceptions

Materials Needed: Handouts/Transparency: "Safety Misconceptions"

Directions: Distribute copies of the "Safety Misconceptions" quiz. Allow students 5 minutes to respond to the true/false questions. Orally review the proper responses to each question and discuss the misconceptions and the probable reasons that they are misconceived. An answer key follows.

**Key to Safety
Misconceptions:**

1. T
2. F
3. T
4. T
5. T
6. F
7. F
8. T
9. F
10. T
11. F
12. T
13. T
14. T
15. T

**Time Required:
10 Minutes**

Safety Misconceptions

INSTRUCTIONS: Place a T for True and F for False in the space provided. Under each false statement rewrite the statement to make it true.

- ___ 1. A person hit by lightning usually dies instantly.
- ___ 2. Lightning never strikes twice in the same place.
- ___ 3. Red is the hunter's best clothing color.
- ___ 4. A rattlesnake gives warning before striking.
- ___ 5. It is impossible to stay afloat in water for long periods with clothes on.
- ___ 6. If a boat overturns, you should swim to shore.
- ___ 7. A drowning person always comes up for air three times.
- ___ 8. Coffee will help sober up a drunk.
- ___ 9. Smaller vehicles can stop in less time and in a shorter distance than larger ones.
- ___ 10. Pumping the brakes helps stop a car more quickly on icy roads.
- ___ 11. A rattlesnake has to be coiled to strike.
- ___ 12. Sharks will not attack close to shore.
- ___ 13. Moss always grows on the north side of a tree trunk.
- ___ 14. There is a difference between "flammable" and "inflammable."
- ___ 15. The only way you can get poison ivy is to touch the plant.

Activity: Office Health and Safety Questionnaire

Materials Needed: Handouts/Transparency: Office Health and Safety Questionnaire

Directions: Distribute copies of the "Office Health and Safety Questionnaire." Allow students 15 minutes to complete. Explain how important comfort and safety are to job performance. Allow students to expand upon any of the topics listed.

**Time Required:
30 Minutes**

Office Health and Safety Questionnaire

INSTRUCTIONS: When filling out the questionnaire, consider only your immediate work area. If your job requires that you go to a different floor, department, or building during the course of a day, it may be helpful to fill out a separate questionnaire. Some questions require a simple "yes" or "no" answer; others need in-depth explanations.

OFFICE DESIGN

- ___ How many people work in the area that you can see from your desk?
 ___ Do all workers in your area work regularly?

What size is your office?

- ___ A room with 3 or fewer people
 ___ A room with 4-10 people
 ___ A room with 11-20 people
 ___ A room with 21-35 people
 ___ A room with 36 or more people

Is your desk or any co-worker's within 3 feet of a:

- ___ Photocopier?
 ___ Printer?
 ___ Fax machines?
 ___ Postage meter?
 ___ Electric punch?
 ___ 2-way radio?
 ___ Other machines?

Does your office have:

- ___ Enough space?
 ___ Not enough space?
 ___ Too much space?
 ___ Enough privacy?
 ___ Not enough privacy?
 ___ Too much privacy?
 ___ Other?

ENVIRONMENT

- ___ Is your office kept clean?
 ___ Are trash cans emptied?
 ___ Are floors cleaned regularly?
 ___ Are there roaches, flies, mice, or other pests? (specify)
 ___ Machines (not including VDTs)
 ___ What machine(s) do you use 4 hours or more each day? (specify)
 ___ Do you get any breaks while using these machines?
 ___ For how long?
 ___ Do you ever have any ill effects while working these machines (headaches, nausea, eye irritation, dizziness, etc.)?
 ___ Are liquids, powders, or lubricants used to operate any machine? (Specify brand name and the label contents.)

Which of the following do you use daily?

- ___ Correction Fluid
 ___ Rubber cement
 ___ Other (specify)
 ___ Do you use a photocopy machine?
 ___ If so, specify brand and model.
 ___ How many hours a day do you use it?

- ___ Do you leave the hood open while you work?
- ___ Do you look into the light while operating the machine?
- ___ Does your machine ever smoke or catch on fire?
- ___ Do you add toner to the machine?
- ___ Does the photocopier room have ventilation?
- ___ Are you given thorough instructions for using machines, tools, and equipment?
- ___ Are you permitted to work without interference or distractions.
- ___ Are "Out of Order" signs posted to identify defective equipment?
- ___ Are scissors, knives, and other sharp tools kept closed or put away when not in use?

VIDEO DISPLAY TERMINALS

- ___ List brand and model of your machine.
- ___ How many hours a day do you use it?
- ___ Do you use it continuously or with interruptions?
- ___ Is the screen easy to read?
- ___ Does the screen have an anti-glare surface?
- ___ What color is the screen?
- ___ What color are the characters?
- ___ What color is the wall behind the screen?
- ___ Is the brightness adjustable?
- ___ Is the keyboard attached to the machine, or is it separate?

- ___ Are there blinds or curtains on nearby windows?
- ___ Do the characters on the screen appear to flicker?
- ___ Do you have to strain to read them?
- ___ Do you wear glasses while using the machine?
- ___ Are they bifocals?
- ___ How often do you have your prescription changed?

When operating the VDT, do you ever:

- ___ Get irritated or sore eyes?
- ___ Get dizzy or nauseous?
- ___ Get tense or nervous?
- ___ What do you like best about the VDT?
- ___ What do you like least about the VDT?

STRESS AND FATIGUE

- ___ Do you stand all day doing your job?
- ___ Half a day?
- ___ 2 hours or less?
- ___ Do you sit all day?
- ___ Do your feet rest on the floor when sitting?

Do you have:

- ___ Varicose veins?
- ___ Backaches or pains?
- ___ Stiff neck?
- ___ Foot problems?
- ___ Other ailments? (specify)
- ___ Do you ever lift heavy objects at work?

Does your job make you tense?

_____ Describe specific symptoms.

AIR QUALITY

_____ Does your office have windows?

_____ Do they open and close?

Does your office have:

_____ Central air conditioning?

_____ Window air conditioners?

_____ Fans or other blowers?

_____ Are you exposed to drafts?

_____ Is there sufficient air circulation?

_____ Is the air ever smoky, stale, or stuffy?

_____ If so, about how many hours per day?

_____ Do you ever notice peculiar odors?

_____ Do you know what the smell is and where it comes from?

Is your office usually:

_____ Too hot?

_____ Too cold?

_____ Just right?

_____ Too humid?

_____ Too stuffy?

_____ Can you or other workers regulate the temperature?

How often do you get colds?

_____ Rarely or never

_____ Once or twice a year

_____ Three or more times a year

Do you frequently have:

_____ Sore throats?

_____ Stiff shoulders or neck?

LIGHTS AND NOISE

_____ Do you use a window as a light source?

What type of overload lighting do you have?

_____ Fluorescent

_____ Incandescent (bulb)

_____ Other

_____ Are fluorescent lights covered?

_____ Do you have a desk lamp?

_____ Can you adequately control your office lighting?

Is your work area:

_____ Too noisy?

_____ Too quiet?

_____ Just right?

_____ Are there quiet places in the office to go to when you need to concentrate?

When you get home from work do you notice any:

_____ Difficulty with your hearing?

_____ Ringing in your ears?

What are the most frequent causes of accidents:

_____ Lifting heavy objects

_____ Tripping or falling

_____ Defective equipment?

_____ Cuts

_____ Burns

_____ Other (specify)

_____ Have there been any disabling accidents recently?

_____ If so, describe.

_____ Are fire exits marked?

_____ Do you have access to fire extinguisher?

- Do you know how to use it?
- Do you have fire drills?
- Do you know where the nearest stairs are located?
- Are stairs well lit?
- Do they have handrails?
- Have there been any fires or explosions?
- Are there "no smoking" areas in your office?
- Are they enforced?
- Is there a doctor or nurse on the premises?
- Is there a well-stocked first-aid kit on the premises?

Does your office have adequate security against intruders?

- Are entrances locked?
- Do elevators have alarms?
- Have there been any security problems?
- If so, describe.
- Do you know how to locate police or security officers in an emergency?

GENERAL HEALTH

- Does your company give physical exams or medical tests?
- If so, describe.
- Are you given test results?
- Does your company have a health plan?
- Do you think it is adequate?

Do you or your co-workers complain about

- Skin rashes?
- Infections?

- Dizziness?
- Headaches?
- Eye irritation/swelling?
- Nausea?
- Swollen feet/ankles?
- Sore throats?
- Chest pain?
- Ulcers?
- High blood pressure?
- Have women in your office had miscarriages or other childbirth-related problems?

OFFICE POLICIES

- Do you have a morning break?
- Do you have an afternoon break?
- Do you work overtime?
- About how much each month?
- Are you paid for overtime?
- Do you get advance notice of overtime?

How would you describe the social climate at your office?

- Friendly
- About normal
- Unfriendly
- Other (specify)
- Are there any major disputes between workers and management?
- If so, describe.
- Is your immediate supervisor generally supportive of what you do?

On a separate sheet of paper, describe any other information about your job, the office environment, and your health that you think might be important.

Module 6 ■ Activity 7 ■ PRODUCTIVITY

Activity: Improving Safety Awareness

Materials Needed: Handouts/Transparency: Project 1-Project 5

Directions: These sheets can be used as a follow-up to Module 6, Activities 3 and 4. Each of the activity sheets deals with some aspect of safety. You may use handouts or transparencies in completing the activities. Lead your students in a discussion of their responses to each assigned activity. Review correct responses and allow students to ask questions or expand upon presented ideas.

Suggested Answers:

Project 1

1. F
2. T
3. T
4. F
5. T
6. F
7. T
8. F
9. T
10. T

Project 2

1. B
2. A
3. C
4. (1) multi-purpose chemical
(2) ordinary dry chemical
(3) foam
(4) carbon dioxide
(5) soda acid

Project 3

1. C
2. F
3. A
4. E
5. B
6. D

Project 4

- A.
- B. X
- C. X
- D.
- E.
- F. X

Project 5

1. F
2. T
3. F
4. F
5. T

Project 6

1. caution, physical hazards
2. fire
3. dangers & hazards in equipment
4. caution against equipment being started or used
5. traffic & housekeeping markings

**Time Required:
5-10 Minutes**

Accident Causes and Prevention

Project 1

INSTRUCTIONS: Answer the following statements true or false by placing a T for true or an F for false in the space at the left.

- ___ 1. Most accidents are caused by being careful.
- ___ 2. "Clowning around" makes you more accident-prone.
- ___ 3. Hand tools should be properly stored.
- ___ 4. Spilled liquid should be spread evenly on the floor.
- ___ 5. Do not sit or lean on tables.
- ___ 6. To unplug electrical equipment, pull the cord.
- ___ 7. Do not overload electrical outlets.
- ___ 8. Keep all filing drawers or desk drawers opened when not in use.
- ___ 9. Check electrical cords for frayed, tangled, or damaged cords.
- ___ 10. Do not get involved in any horseplay.

Project 2

INSTRUCTIONS: Answer the following questions.

- 1. A fire of flammable liquid, such as gasoline or grease, is a class _____ fire.
- 2. A fire of ordinary combustibles, such as wood, is a class _____ fire.
- 3. A fire of electrical equipment, such as motors, is a class _____ fire.
- 4. List the five types of fire extinguishers.
 - (1)
 - (2)
 - (3)
 - (4)
 - (5)

Module 6 ■ Activity 7 ■ PRODUCTIVITY

Project 3

INSTRUCTIONS: Match the terms on the right with definitions by filling in the blanks with the correct letter.

- | | | |
|-------|--|---------------|
| _____ | 1. A visit to work place to identify unsafe conditions. | A. OSHA |
| _____ | 2. A measure established by OSHA as an example of safe working conditions. | B. NIOSH |
| _____ | 3. Occupational Safety and Health Act | C. Inspection |
| _____ | 4. A notification by OSHA that a safety factor is not up to the set standards. | D. Penalty |
| _____ | 5. National Institute of Occupational Safety and Health | E. Citation |
| _____ | 6. Punishment for not following OSHA safety standards. | F. Standard |

Project 4

INSTRUCTIONS: Indicate the reasons citations are issued by OSHA by placing an X in front of the letter of the correct statements.

- _____ A. Maintaining records
- _____ B. Failing to post OSHA standards
- _____ C. Giving false information
- _____ D. Reporting an accident or death
- _____ E. Fixing tools and equipment to meet safety standards
- _____ F. Failure to post a notice in an unsafe or dangerous area

Common Essential Elements—Safety

Project 5

INSTRUCTIONS: Place a T for True or F for False in front of each of the statements pertaining to taking proper care of equipment. Describe the correct procedure to use under each False statement.

- ___ 1. Always try to repair office equipment yourself.
- ___ 2. Clean up any equipment used.
- ___ 3. Yank the cord on the machine to turn it off.
- ___ 4. If a machine is malfunctioning, keep trying to make the machine work properly.
- ___ 5. Clean the equipment annually.

Project 6

INSTRUCTIONS: Identify and explain the following safety color code designations.

- 1. Yellow
- 2. Red
- 3. Orange
- 4. Blue
- 5. Black, white, or combination of black and white

Common Essential Elements—Safety

Activity: How Observant Are We?

Materials Needed: A nondigital watch borrowed from a class member

Directions: Ask someone in the group if you may borrow his or her watch for a moment. (*Caution:* Make certain it is a nondigital type.) Tell that person (after the watch's receipt) that you would like to test his or her powers of observation, and ask the entire group to silently "play along" with the individual whose watch you are using. Tell the individual to assume that the watch was lost and you found it. Before you return it, you want to make certain the watch can be identified by its owner. Some sample questions include: "What's the brand name?" "What color is the face?" "Anything else printed on the face?" "Roman or Arabic numerals?" "All 12?" "Does the watch have the date and/or day on it?" "Second hand?"

If the group is silently responding as the volunteer attempts to vocally answer the questions, the point is more easily made (i.e., most people cannot totally and accurately describe their own timepieces even if they look at them dozens of times a day).

Follow-Up Discussion:

1. Besides me, who else flunked this test? Why?
2. Why aren't we more observant? (Time pressure, lack of concern, taking things for granted, etc.)
3. Have you seen incidents when people have overlooked commonplace things and problems or a lack of productivity has resulted?

**Time Required:
5 Minutes**

--Source: *The Big Book of Presentation Games*, Edward Scannel and John Newstrom, McGraw - Hill, 1998

Module 6 ■ Activity 9 ■ PRODUCTIVITY

Activity: What Kind of Employee Are You?

Materials Needed: 3 glasses, 2 aspirin tablets, 2 Bromo Seltzer tablets, 2 Alka Seltzer tablets, a towel for cleanup

Directions: Fill three glasses about three-quarters full of water and place them on a table in view of all participants. Place two aspirin in the first glass. Suggest that the lack of any overt response is analogous to a "do-nothing", nonproductive employee.

Place two Bromo Seltzer tablets in the second glass. Note that this type of employee has a great burst of initial enthusiasm, but quickly loses it.

Place two Alka Seltzer tablets in the third glass. Note that this type of employee produces a relatively strong but stable output (and hence is the most desirable).

Follow-Up Discussion:

Explain that there are three types of employees in the workforce today. The first type **makes** things happen; the second type **watches** what happens; and the third type **wonders** what happened! This story is especially effective if illustrated with Retrophane transparency film, in which the first key word (makes) can be written on the overhead with permanent ink, while the second and third key words (watches and wonders) should be written with their disappearing-ink pen. The point can then be vividly demonstrated that only those who **make** things happen will survive over the long term and be the most productive employees.

**Time Required:
5 Minutes**

--Source: *The Big Book of Presentation Games*, Edward Scannel and John Newstrom, McGraw -- Hill, 1998

Module 6 ■ Activity 10 ■ PRODUCTIVITY

Activity: Funny Fingers

Materials Needed: Construction paper (six 8" x 10" sheets for each team); clear tape and masking tape; a paper towel tube (to mold the "fingers"); round balloons (twelve for each participating team); large cardboard boxes (two for each team) to hold the inflated balloons; a flip chart, a felt-tip marker; a clock or timer.

Directions: Make "fingers" by rolling a piece of construction paper around the towel tube (not too tightly), taping the seam in several places, and then sliding the paper off the tube. You need to make six "fingers" for each team.

For each team, inflate twelve balloons and place them in a large cardboard box. Using masking tape, mark a starting line on the floor which is approximately twenty feet (eight giant steps) in front of the box holding the balloons. Place a second empty cardboard box approximately twenty feet behind the starting line (in the opposite direction). Repeat this setup for each participating team.

1. Instruct participants to form teams of up to ten members each. The players from each team should form a line behind their team's indicated mark on the floor, facing the box filled with the balloons.
2. Distribute six paper tubes to each group. Explain that each team's challenge will be to use the "fingers" to transport as many balloons as possible in a five-minute period to the end of the line. After the directions are given and before the activity begins, team players on each team will predict how many balloons they will be able to transfer during the allotted time period.
3. Give the following directions to the participants:

When the signal is given, the first player on the team will put the six tubes on any three fingers of each hand; other team members may help. The player will then leave the starting line, pick up a balloon, bring it back, and place it in the team box at the other end of the line. The "fingers" are to be transferred to the next player in line and the process is repeated until time is called.

Module 6 ■ Activity 10 ■ PRODUCTIVITY

Record each team's prediction on a flip chart, then signal for the activity to begin. Give a one-minute warning before time is called.

4. Count the number of balloons in each team's receptacle box and record the actuals next to the predictions on a flip chart. The team that has transferred the most balloons in five minutes is the winner. (If more than one team has transferred all the balloons, the winner is the team that accomplished the goal in the least amount of time.)

Follow-Up Discussion:
(Answers may vary)

- ◆ How close did your team come in predicting the outcome? Did setting this goal help your team's productivity?
- ◆ How well did team members work together to coordinate the activity?
- ◆ What effect did time pressure have on team performance and productivity?
- ◆ What other factors influenced the team's ability to perform the task?

**Time Required:
10 Minutes**

—Source: *Working Together*, Lorraine L. Ukens, Jossey-Bass/Pfeiffer, 1997.

Module 6 ■ Activity 11 ■ PRODUCTIVITY

Activity: Building Bridges

Materials Needed: Newspapers, paper clips, glue, tape, stapler, scissors; a ruler; a styrofoam cup; one pound of jelly beans; a container (box, pan, or pail).

Directions:

1. Obtain enough newspapers so that each team will receive five full sheets. The actual amount of paper clips, glue, tape, staplers, and scissors to be provided depends on the number of teams participating; you should limit the supply so that teams are required to share. Place these items on a table that is accessible to all participants.
2. Instruct participants to form teams of up to five members each. Distribute five full sheets of newspaper to each participating team.
3. Explain that the teams will have twenty-five minutes in which to design and construct a bridge from the materials provided. Teams may use as many of the remaining materials as they wish, but supplies are limited and must be shared by all teams. The team with the bridge that can support the most weight will be the winner. The bridges may not be fastened to any structure (e.g., table or chair) and they must span one yard in length.

The weight (jelly beans in a cup) to test the bridges will be applied to the center of the bridge's span.

4. Signal for the activity to begin. After twenty-five minutes, stop the groups' work and begin to test the bridges. Two members from each team (one at each end) will hold their team's bridge above the ground. The facilitator places the empty styrofoam cup on the center of the bridge span and adds jelly beans until reaching the point where the bridge collapses. (Note: First place a container [box, pan, or pail] under the bridge being tested to catch spillage.) The total number of beans in the cup when a bridge collapses is the weight that it can support. Keep a record of the totals held by each team.

5. Continue testing all the bridges. The bridge that supports the most weight is the winner.

Follow-Up Discussion:
(Answers may vary)

- ◆ How difficult was this task? Why?
- ◆ What approach did your team take in designing the bridge?
- ◆ What approach did the team take in constructing the bridge?
- ◆ How well did team members work together?
- ◆ How well did teams work together to share the limited resources?
- ◆ Make sure class members understand that workers always have to be watchful of conserving a company's resources in order to be productive.

Time Required:
40-60 Minutes

—Source: *Working Together*, Lorraine L. Ukens, Jossey-Bass/Pfeiffer, 1997.

Module 6 ■ Activity 12 ■ PRODUCTIVITY

Activity: Goalsetting to Increase Productivity

Materials Needed: Paper, pencil, flipchart or whiteboard, markers

Directions:

1. Give each person paper and a pen or pencil and then read the following to the group:

In order to make effective decisions and remain productive, groups must first analyze problems and then set goals. It is important to avoid personal prejudice or political motivations when setting goals.

2. Divide the participants into small groups of three to five members. Tell each group to imagine the following scenario:

You are on the search committee choosing a new employee for your department. As a group, determine the top five criteria by which you will screen applicants. Your group must reach a consensus on the five most important qualifications for the new employee.

3. After about fifteen minutes, when all groups have finished, have each group share its five criteria and post them on the flip chart.

4. Use the following questions to guide a discussion of the activity:

- ◆ In what ways would a search for a new employee be simplified by establishing goals beforehand?
- ◆ How could decision making and production become bogged down if no goals were set?
- ◆ What are some other situations in your work or personal life where you could accomplish more by setting goals ahead of time?
- ◆ Does goal setting help to clarify a task? If so, how?

**Time Required:
15-20 Minutes**

—Source 100 Great Games and Activities, Arthur VanGundy, Jossey-Bass/Pfeiffer, 1998.