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## Introduction to Safety – Unit Three: Personal Protective Equipment

### *Lab 1: Respirator Protection Fit Test*

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Student Name: \_\_\_\_\_

#### Materials Needed:

- Respirator Mask

#### Description of Topic

- The proper use of a respirator is essential when working in an environment that contains toxic air. To avoid breathing deadly gasses, respirators should be used so that the worker can perform a required task in this situation. However, before using this PPE equipment, the technician needs to be trained on its proper usage. The training should include inspection, donning the unit, testing for proper fit, cleaning after use, and storing it in the appropriate environment.

#### Objective

- At the completion of this unit the student should fully understand and demonstrate the use and care of a PPE respirator

#### Safety and PPE usage

- The respirator exercises should be performed under the watchful eye of a trained safety instructor. Final approval of performance will be evaluated by instructor. All work in lab must be done safely and according to OSHA standards.

#### Lab A

- After attending lecture on the use of a respirator, the student should obtain this PPE device from the storage cabinet in the lab facility. After a practice run, the student should then demonstrate the following steps while explaining them to the instructor:

##### Inspect the unit for damage

- Check the seal for cracks, firmness, and flexibility.
- Check the inhalation and exhalation valves to ensure that they work properly.
- Check the face mask for cracks and visibility.
- Check the head straps for damage.
- Ensure that all straps are extended and the head strap is folded behind the face mask.

##### Don the unit

- Place the face mask over nose.
- Adjust the head strap over the back of the head.
- Tighten all straps in in order (front, chin, sides).
- Check for:





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- Position of the mask on the nose
- Room for eye protection
- Room to talk
- Position of the mask on the face and cheeks
- Chin properly placed
- Adequate strap tension, not loose or overly tight
- Fit across nose bridge
- Tendency of respirator to slip
- Perform self-observation in a mirror to evaluate fit and respirator position

#### **Test the unit to ensure that it has a proper seal**

- Perform the positive seal check
- Perform the negative seal check

#### **Conduct the following steps:**

- Normal breathing
- Deep breathing
- Turning head from side to side
- Talking (Recite the alphabet)
- Bending
- Jogging in place for 30-seconds

#### **Properly doff the unit**

- Loosen the chin straps
- Lift up and remove over the head
- Return all straps to their extended position

#### **Clean the unit**

- Clean the face seal
- Clean the face mask
- Clean the valves

#### **Demonstrate how to clean the unit**



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#### Grading Rubric

Below is an example of a rubric to implement when evaluating the performance of individual students for each of the laboratory exercises.

	Excellent 5 pts	Good 4 pts	Fair 3 pts	Poor 2 pts	Unacceptable 1 pts	Grade Received (N/A)
<b>Ability to Follow Directions</b>	Excellent  Followed directions to the letter.	Good  Followed directions.	Fair  Moderately followed directions.	Poor  Did not follow directions.	Unacceptable  Did not appear concerned with directions.	Grade Received
<b>Demonstrated Knowledge of Tools</b>	Excellent  Student knows and is able to identify and explain necessary tools for completion of the project.	Good  Student is able to identify and explain necessary tools for completion of the project with some assistance.	Fair  Student is unable to identify or use tools without major prompting.	Poor  Student is not able to both identify and use tools.	Unacceptable  Student's use of tools posed a danger to self and others.	Grade Received
<b>Level of Needed Assistance</b>	Excellent  Student was able to complete the task without assistance.	Good  Student was able to complete the task with little assistance.	Fair  Student was able to complete the task with moderate assistance.	Poor  Student was unable to complete task without major assistance.	Unacceptable  Student was unable to complete task with assistance.	Grade Received





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	Excellent 5 pts	Good 4 pts	Fair 3 pts	Poor 2 pts	Unacceptable 1 pts	Grade Received (N/A)
<b>Student Preparedness</b>	Excellent  Student had/gathered all materials and was completely ready to go to work.	Good  Student had/gathered most materials and went to work.	Fair  Student had/gathered most materials, however, they needed excess time to do so.	Poor  Student did not have/gather some of the needed materials to perform work.	Unacceptable  Student did not have/gather the needed materials and was unable to perform work.	Grade Received
<b>Time Management</b>	Excellent  Routinely used time well throughout the project to get the job done on time.	Good  Used time fairly well throughout the project.	Fair  Procrastinated somewhat but did get the job done on time.	Poor  Was unable to adequately meet timeline due to inability.	Unacceptable  Did not meet timeline due to procrastination or wasting time.	Grade Received





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