



WEATHERIZATION

TOPIC OF STUDY

Safety



90 MINUTES

KEY TERMS

Eye protection
Breathing equipment
Gloves
Hard hat
Coverall
Hood
Booties
Knee pads
Hearing protection

LESSON

Introduction to Personal Protective Equipment: Identification and Use (Lab)

BIG IDEA(S)

Some form of PPE is always required in every weatherization installation.

OBJECTIVES

Students will:

- Identify the basic components of PPE
- Identify what PPE is needed based on tasks undertaken
- Use a Materials Safety Data Sheet (MSDS) to identify hazards
- Demonstrate how to properly wear PPE

TASK LIST SUBCATEGORY

- 303 Demonstrate the use of Personal Protective Equipment (PPE)
- 305 Recognize and mitigate hazards (relevant to tools or materials to be used)
- 811 Prepare and maintain tools and equipment used for energy auditing and weatherization (Safety)

OVERVIEW

Some form of PPE is always required in every weatherization installation. This lab teaches the basics of PPE, what each component is used for and proper wear. One key component in safety is the Materials Safety Data Sheet (MSDS). These are used to alert installers of any potential hazards associated with the various materials.

STANDARDS

PA/SDP

PA defers to Federal OSHA Standards: 1910 Subpart – PPE that include 1910.132-1910.138 (General requirements, eye and face, respiratory, head, foot, electrical, hand).
https://www.osha.gov/sites/default/files/enforcement/directives/CPL_02-01-050.pdf

INSTRUCTIONAL

TEXT/REFERENCES

Energy Conservation Handbook, p. 41-42

MATERIALS NEEDED

Teacher Presentation: Lab setting

Content:

MATERIALS

- Duct tape
- MSDS sheets
- Safety equipment referenced p. 41 (*Energy Conservation Handbook*)





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IMPLEMENTATION (LESSON PLAN)

ENGAGE

- Ask *What experiences have you had in using PPE?* Share personal example. Note how experiences comply or not to standards. Perhaps start with COVID mask.

EXPLORE

1. Explain that all labs and tasks explain which PPE are required and that proper use is required to continue.
2. Follow directions on p. 42 of the *Energy Conservation Handbook*, explaining the equipment and give examples of when it is used.
3. Demonstrate to students how to properly wear PPE.
4. Students retrieve individually provided PPE equipment and show the instructor how to properly wear it. If a large number of students, have students pair having one demonstrate, the other watch. The watcher may ask questions only after the demonstrator has finished with the task. Instructor then asks pairs to switch once feedback has been provided.

EXPLAIN

1. Play this OSHA PPE game with two teams.
<https://servicehospitality.com/wp-content/uploads/2017/06/3.-Win-Lose-or-Draw-PPE-Activity.pdf>
2. Debrief with the whole group once all students have finished.
 - a. What components were easiest to secure properly?
 - b. What was the hardest and why?
 - c. What will you be sure to try next time?

EXTEND/EVALUATE

- Discuss maintenance of PPE, disposal of consumables, and storage of non-consumables

RESOURCES/LINKS

WXTV Montana 12:30 video on PPE and Respirators. Can be used selectively. Gives a basic overview but only show some and a time and discuss and relate to activities.

<http://wxtvonline.org/2010/09/respirators-ppe/>

OR

<https://www.youtube.com/watch?v=QOEjxFqT7QM>

