**Unit:**

**Lesson Title: Using the Head Eye Foot Protection Box**

**Estimated Time: 30 – 60 minutes**

**Need:** Understand why PPE is necessary and the possible consequences from not using them.

**Objectives:**

1. Students will learn to examine the importance of safety equipment for personal safety using previously constructed demo box.
2. Students will be able to use their safety demo box to demonstrate the result of various objects falling on protected and unprotected body parts

**Applied Academic Competencies:** (for local cross-curricular documentation)

1. AFNR.CS.03.04. Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.

**Essential Equipment, Resources & Supplies:**

1. Head Eye Foot Protection Boxes
2. Hardhat
3. Bicycle Helmet
4. Boot (steel-toed and regular)
5. Safety glasses
6. Mannequin head (not necessary but recommended)
   1. <https://www.amazon.com/BEPHOLAN-Practice-Cosmetology-Mannequin-Eyelashes/dp/B075QGXWQW/ref=sr_1_6?keywords=mannequin+head&qid=1561324098&s=gateway&sr=8-6>
7. Various fruits
8. Nails
9. Various weighted object (wrenches, bolts, round stock etc.)

**Teaching Procedures:**

**Interest Approach:**

1. Show the following video to introduce today’s lesson. Explain that each group will be using what they built last lesson to recreate this experiment on a smaller scale. <https://www.youtube.com/watch?v=6wQKUDX7D94>

**Presentation:**

1. Using one of the Head Eye Foot Protection Boxes, demonstrate how to correctly (and safely) use it. For example, place an apple in the box and drop a weight or wrench or whatever else you have around on it.

**Application:**

1. Working in the same groups as the previous lesson, have students examine the importance of PPE by working through a series of experiments with their boxes.
   1. Each student should be given a worksheet (attached at end of lesson) to fill out during the lesson.
2. Students will drop various weights from multiple different heights on both protected and unprotected “human counterparts”. They will record the results of each drop on the worksheet.
   1. If using mannequin heads linked above, a support will need to be improvised to support a hardhat since they are only half heads.
   2. Additionally, safety glass demonstration can be done by simply laying head flat on ground.
   3. A piece of cardboard large enough to cover the bottom of the box is recommended to prevent excessive messes from smashed fruit.
3. Give each group different items if possible and have them come back together during the last 10 minutes of class to discuss the different results they obtained.
   1. Some possible guiding questions: *These may be added to worksheet instead if desired.* 
      1. Was there any PPE that protected the person no matter the item or height?
      2. Was there any PPE that did not protect as well as you expected it to?
      3. How has this experiment changed your outlook on PPE and safety?
      4. How can we use this experiment to improve our own laboratory safety?

**Evaluation:**

1. Possible evaluation methods for lesson: *Instructor may also substitute own desired evaluation.*
   1. Grade the worksheet students completed during this lesson.
   2. Informal discussion-based evaluation using questions above or other of instructor’s choosing.
   3. Written reflection on PPE and its importance in agricultural safety and their own SAE’s.
   4. Have students create a video PSA on safety and PPE using their safety demo box.

**Suggested Supplemental Resources:**

* 1. 
  2. 

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| --- | --- | --- | --- | --- | --- |
| 1. PPE Piece |  |  |  |  |  |
| 1’ Drop |  |  |  |  |  |
| 2’ Drop |  |  |  |  |  |
| 3’ Drop |  |  |  |  |  |
| 4’ Drop |  |  |  |  |  |

Directions: Use the following worksheet to record the result of drops from varying heights onto different types of personal safety equipment.