

# 06\_Weatherproofing

Content Area: **Special Education**  
Course(s):  
Time Period: **Semester**  
Length: **2 Weeks**  
Status: **Published**

## **General Overview, Course Description or Course Philosophy**

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Do-It-Yourself (DIY) Tech is a one semester course at the high school. This class enables students to understand how to address basic household repairs while students safely use and maintain appropriate tools, machinery, equipment, and resources to accomplish project goals.

## **OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS**

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Objectives:

- The ultimate goal of weatherization is to protect your home from the outside elements in order to maximize energy efficiency.

Essential Questions:

- Can we develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option?

Enduring Understandings:

- Protecting your home from the weather outside is important for every season, not just the colder ones.
- Weatherizing your home provide better comfort and fewer drafts.
- Weatherizing can help you save money on energy costs while making your home more environmentally friendly.

## **CONTENT AREA STANDARDS**

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9.4.2.CT.1: Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem.

9.4.2.CT.2: Identify possible approaches and resources to execute a plan.

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

## **RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)**

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CAEP.9.2.12.C

Career Preparation

### **STUDENT LEARNING TARGETS**

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#### **Declarative Knowledge**

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Students will understand that:

- Energy upgrades may include:
  1. Air sealing
  2. Duct sealing
  3. Rim joist sealing
  4. Attic sealing
  5. Window and door replacement
  6. Weatherstripping
  7. Attic insulation
  8. Wall insulation
- Weatherization methods such as air sealing, duct sealing, and crawl space sealing involve blocking any cracks, gaps, or openings that create air leaks.
- Weatherstripping involves the sealing of openings around your doors and windows that are letting in drafts.
- Weatherproofing your windows and doors will greatly contribute to optimal performance of your heating and cooling systems, which will cause these systems to last longer.

#### **Procedural Knowledge**

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Students will be able to:

- Weatherstrip or seal openings around doors and windows that are letting in drafts.
- Assess if windows and doors are poorly functioning, that let in a large amount of cold air and provide little ventilation in the summer.

## **EVIDENCE OF LEARNING**

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### **Formative Assessments**

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do nows, exit slips, performance / participation in various class activities, homework, virtual or in-person experiences to demonstrate completion of tasks

### **Summative Assessments**

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final projects (class presentations, videos, etc), interviews, quizzes, and tests

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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- Youtube.com
- Homeadvisor.com
- eHow.com
- Howcast.com
- <https://www.drenergysaver.com/about-dr-energy-saver/news-and-events/26740-why-is-weatherization-important-for-your-home.html#:~:text=The%20ultimate%20goal%20of%20weatherization,not%20just%20the%20colder%20ones!&text=Attic%20insulation%20will%20prevent%20energy%20loss%20and%20keep%20your%20home%20comfortable.>
- <https://titansiding.com/blog/the-importance-of-weather-proofing>

## **INTERDISCIPLINARY CONNECTIONS**

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You can reduce energy costs to reasonable levels by weatherproof the said fittings, thereby creating an energy efficient home or office building.

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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See link to Accommodations & Modifications document in course folder.

