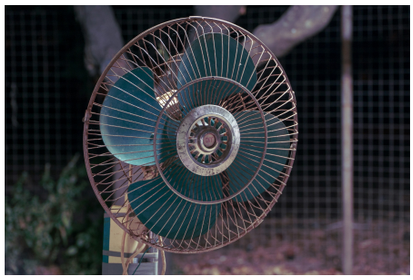


Hazard Literacy Center

Hazard Literacy Education Program

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No AC, No Break: Working Through the Heat



1. Program Overview

This program is an integrated social-science education unit that explores the health threats that heat waves pose to people working in environments without cooling facilities. Using picture cards depicting various work environments, learners assess the risk of heat-related illness and, based on this, discuss and present improvement measures for the work environment in groups. Rather than simple memorization of heat-safety rules, the program is designed to help learners understand the realities faced by workers in heat-vulnerable conditions and recognize this as an issue that individuals and society must address together.

Grade Level	Elementary school grades 5–6	Instructional Methods	Lecture, picture-card activity, group discussion, presentation
Learning Environment	Regular classroom	Duration	Total 80 minutes (40 min × 2 sessions)
Required Materials	Work-environment picture cards, heat-illness symptom reference material, worksheet		

2. Learning Objectives (Hazards Literacy Framework)

① Explain the types of heat-related illness caused by heat waves (heat stroke, heat exhaustion, heat cramps, etc.) and their causes.
② Compare and evaluate the heat-wave risk of various work environments and identify vulnerable occupations.
③ Propose improvement measures for work environments with a high risk of heat-related illness.

Learning Objectives	Knowledge & Understanding		Reasoning & Skills					Values & Attitudes			Psychology & Emotion			Behavioral & Practical Enagement		
	A1	A2	B1	B2	B3	B4	B5	C1	C2	C3	D1	D2	D3	E1	E2	E3
Objective ①	O	O														
Objective ②			O													
Objective ③								O		O		O			O	O

3. Key Concpets

· The definition of a heat wave and its meteorological criteria (perceived temperature of 33°C or above)
· Types of heat-related illness: heat stroke, heat exhaustion, heat syncope
· Heat-vulnerable occupations: outdoor sectors such as construction, agriculture, delivery, and sanitation work
· Responsibility for heat-wave response at the individual, employer, and national levels
· Social inequality in disasters: the same natural hazard can cause different degrees of harm depending on socioeconomic conditions

4. Program Sequence

	Learning Activities
Introduction	·Students share their own experiences with heat ·Prompt: "How do people who work without air conditioning get through the summer?"
Inquiry1	·Review reference material on types and symptoms of heat-related illness ·Study excerpted key content from the Korea Disease Control and Prevention Agency's "Heat-Related Illness Prevention Manual by Target Group" ·Summarize the Ministry of Employment and Labor's 5 Basic Rules for Heat Wave Prevention (water, shade, rest, cooling gear, emergency response)
Inquiry2	·Distribute work-environment picture cards (5 types: construction site, farming, delivery, sanitation, kitchen) ·In groups, classify each card's risk level (high/medium/low) and write reasons ·Discuss individual/business (employer)/government measures for preventing heat-related illness in each environment ·Present and share results with the whole class
Wrap-up	·Complete the worksheet and share reflections on the activity

5. Theoretical Background and Activity Design for Disaster Education

A heat wave refers to extremely severe heat, and the Korea Meteorological Administration issues heat-wave advisories or warnings when there is concern of heat-wave hazards. Heat-related illness is an acute condition caused by heat, including heat stroke, heat exhaustion, and heat syncope. According to the Korea Disease Control and Prevention Agency, in 2024 there were 3,704 reported cases of heat-related illness and an estimated 34 deaths, with 78.7% of cases occurring outdoors (31.7% at outdoor worksites, 14.3% in fields). This statistic shows that heat-related illness is closely tied not only to individual outdoor activity but also to work environments. In July 2025, a Ministry of Employment and Labor ordinance (the "Occupational Safety and Health Standards Rules") was enacted, making it mandatory for workplaces to establish a heat-illness prevention system — including measuring perceived temperature at worksites, taking health protection measures for heat-wave work, taking preventive measures against harm from heat-wave work, and installing rest facilities. Through this program, students can recognize the risks of heat-related illness as they relate to work environments and develop measures at the individual, societal, and national level to prevent it.

6. Instructional Considerations

- Avoid treating heat-related illness simply as "a problem that can be avoided by being careful." Guide students to also discuss the problem of heat-vulnerable work environments.
- Before the picture-card activity, give guidance in advance so that no remarks demeaning particular occupations arise, and emphasize the social value of all forms of labor.
- When students propose "improvement measures," guide them not to focus only on individual responsibility (drinking water, resting often, etc.), but also to draw out responses at the employer, national, and societal level.

7. References

- Korea Disease Control and Prevention Agency. (2025). Heat-related illness prevention manual for targeted populations (Rev. ed.).
- Ministry of Employment and Labor. (n.d.). Workplace response guidelines for preventing heat-related illnesses during heatwaves.
- Ministry of Employment and Labor, & Korea Occupational Safety and Health Agency. (n.d.). Implementation guide for the 3 basic rules of heatstroke prevention.

Hazard Literacy Center Education Program

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Topic	
What will we learn?	

1 Opening Reflection

Let's think of jobs or places where extreme heat is especially dangerous and why.

2 Summarizing: Heat Waves and Heat-Related Illness

- ( ) : Extremely severe heat that can have a major impact on the human body
- ( ) : When the daily maximum perceived temperature stays at or above 33°C for 2 or more days
- ( ) When the daily maximum perceived temperature stays at or above 35°C for 2 or more days
- ( ) : An illness caused by heat, showing symptoms such as headache, dizziness, and fatigue.

General Health Guidelines for Preventing Heat-Related Illness	The 5 Basic Rules for Heat-Wave Safety
• Drinking ( ) frequently • Staying ( ) • Refraining from ( ) activity • Checking ( ) every day	• Providing enough cool, clean ( ) • Installing ( ) and ( ) • During heat-wave work, resting for at least ( ) minutes within every ( ) hours • Providing ( ) such as cooling clothing and vests • Calling 119 immediately if someone develops a heat-related illness

3 Inquiry: Classifying the Risk Level of Work Environments

Look at the picture cards below and fill in the classification table.

Construction site worker



Agricultural worker



Delivery rider



Warehouse worker



Sanitation worker



Kitchen worker



Occupation	Risk level			Reason it's risky / Improvement suggestions
Construction site worker	High	Med	Low	
Agricultural worker	High	Med	Low	
Delivery rider	High	Med	Low	
Warehouse worker	High	Med	Low	
Sanitation worker	High	Med	Low	
Kitchen worker	High	Med	Low	

4 Discussion: Ways to Reduce Heat-Wave Damage

To reduce heat-wave damage, what roles should individuals, businesses (employers), and the government each play?

individuals

businesses (employers)

government

5 Wrap-up

Let's summarize what we newly learned and felt through this lesson.