

LINCS Moodle: Teaching Energy Literacy to Adult Learners Accessibility Assessment

Date of Review: 02/13/24

Date of Revalidation 03/01/24

Reviewers:

- Harathi Guddeti
- Anik Hossain

Attendees:

Testing tools and technologies:

- Colour Contrast Analyser
- JAWS 2022
- WAF
- Axe
- ANDI
- Windows 10
- Google Chrome

Accessibility Assessment Notes:

1. The issues highlighted are representative samples of the assessment. While applying the fix, make sure to apply the fixes to all the incidents throughout the site.

Scope:

- Complete course – Unit 1, 2, 3, 4, 5, 6

Note:

- Is it an Internal and External facing – Both
- Approximate no. of users – Many
- FSA application – No

Issues:

1. Image of text and text alternative

Unit 1: Introduction

100% COMPLETE

- Navigation and Keyboard Accessibility Instructions
- Importance of Energy as a Topic for Adult Learners
- What is Energy Literacy?

Applying the Seven Essential Principles

The seven Essential Principles in the Energy Literacy Framework explain basic and important ideas about energy and energy resources. Understanding and applying these principles enables people to make decisions with a more comprehensive awareness of energy.

The seven Essential Principles are as follows:

Energy Literacy Principles

- 1 Energy is a physical quantity that follows precise natural laws.
- 2 Physical processes on Earth are the result of energy flow through the Earth system.
- 3 Biological Processes depend on energy flow through the Earth System.
- 4 Various sources of energy can be used to power human activities, and often this energy must be transferred from source to destination.
- 5 Energy decisions are influenced by economic, political, environmental, and social factors.
- 6 The amount of energy used by human society depends on many factors.
- 7 The quality of life of individuals and societies is affected by

Issue Description:

- Image of text is used to present the “Energy Literacy Principles”
- Text alternative of the image is marked as null and the seven principles are missed by AT users

Screen(s):

- Unit 1: Introduction -> What is Energy Literacy
- Unit 3: Energy Flow -> Strategies for Teaching Principle 2

Source Code:

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Recommendation: Either replace the image in actual text form or ensure text description of the principles is presented on the page.

Success Criteria: 1.1.1 Non-Text Content, 1.4.5 Image of Text

Impact: Serious

[Revalidation 03/01/24] – Resolved

2. Link purpose

Unit 1: Introduction
100% COMPLETE

- Navigation and Keyboard Accessibility Instructions ✓
- Importance of Energy as a Topic for Adult Learners ✓
- What Is Energy Literacy? ✓

Select a button below to download the framework for use throughout this course and in your classroom.

Energy Literacy Framework (English)
The English version of Energy Literacy: Essential Principles and Fundamental Concepts for Energy Education.

GO TO PDF

Energy Literacy Framework (Spanish)
Some teachers may find it useful to note that the Energy Literacy Framework is also available in Spanish.

GO TO PDF

Additional example:

Unit 1: Introduction
100% COMPLETE

- Navigation and Keyboard Accessibility Instructions ✓
- Importance of Energy as a Topic for Adult Learners ✓
- What Is Energy Literacy? ✓

This is the first in a series that goes on to highlight each of the seven principles; other videos in the series will be addressed later in this course.

Energy Literacy Videos (Full Series)
The full series of videos on the Department of Energy website.

GO TO WEBSITE

Energy Literacy Videos (Spanish Versions)
These videos are also available in Spanish. Select the button to open the webpage dedicated to Energy Education Resources in Spanish.

GO TO WEBSITE

Issue Description: Assistive technology users often encounter links outside of the surrounding context. When the links are accessed the document name and links to be visited website name is not associated besides the “Go To PDF/Go To Website” links.

Screen(s): Globally

- Unit 1: Introduction -> What is Energy Literacy
- Unit 3: Energy Flow -> Strategies for Teaching Principle 2, Strategies for Teaching Principle 3
- Unit 4: Energy Sources and Decisions
- Unit 5: Energy Use and Society

Source Code:

```
<a class="blocks-button__button"
href="https://www.energy.gov/eere/education/articles/energy-literacy-framework-50-march-2017-english" rel="noopener noreferrer" tabindex="0" target="_blank"
```

aria-label="Go to PDF (opens in a new tab)" style="--color-button-bg: #9f2a25; --color-button-text: #fff; --color-button-border: transparent;">Go to PDF

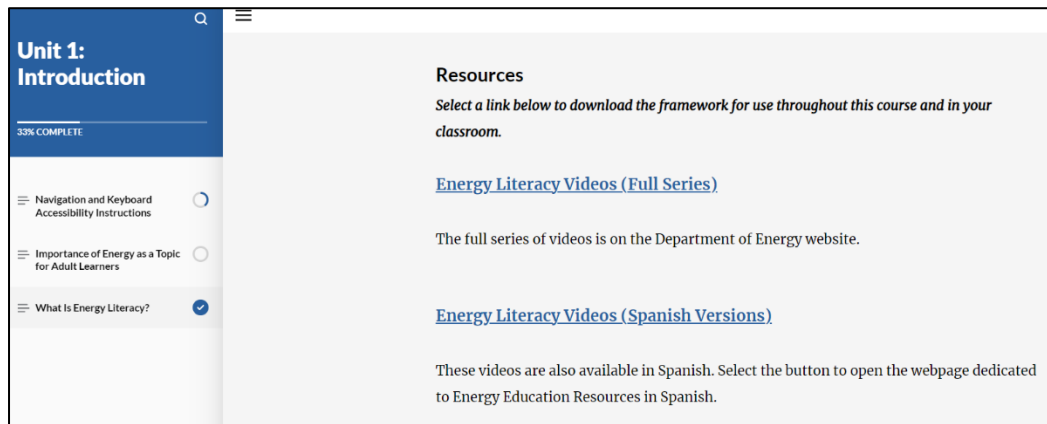
Go to Website

Recommendation: Add an aria-label to each ambiguous <a> to describe the document name/link name programmatically.

Success Criteria: 2.4.4 Link Purpose

Impact: Minor

[Revalidation 03/01/24] – Resolved



3. Bold/Style for headings

Unit 3: Energy Flow

0% COMPLETE

- Navigation and Keyboard Accessibility Instructions
- Overview of Principle 2
- Strategies for Teaching Principle 2
- Overview of Principle 3
- Strategies for Teaching Principle 3
- Unit Summary

Energy Flows Curriculum Guide

Developed by the National Energy Education Development (NEED) Project, this guide is one of many NEED Project resources that could be included in this course. The NEED Project curriculum guides support the Next Generation Science Standards and have been correlated to the Common Core State Standards as well as individual state standards. More than 100 guides are organized by grade level, topic, and subject area, providing a secondary opportunity to showcase language arts, social studies, and math lessons that incorporate energy literacy content.

NEED Teacher Resources

The Educator section of the NEED website features a collection of teacher resources.

Climate Change Resources

The U.S. Environmental Protection Agency maintains a page of Climate Change Resources for educators and

Issue Description: Headings that introduce content sections are not marked as a heading.

Screen(s): Globally

- Unit 1: Introduction
- Unit 3: Energy Flow
- Unit 4: Energy Sources and Decisions
- Unit 5: Energy Use and Society

Recommendation: Ensure that headings introduce content sections are properly marked up as headings (<h1> - <h6>).

Success Criteria: 1.3.1 Info and Relationships

Impact: Minor

[Revalidation 03/01/24] – Resolved

Unit 3: Energy Flow

50% COMPLETE

- Navigation and Keyboard Accessibility Instructions
- Overview of Principle 2
- Strategies for Teaching Principle 2
- Overview of Principle 3
- Strategies for Teaching Principle 3
- Unit Summary

The following online resources provide useful information related to Principle 2:

[Energy Flows Curriculum Guide](#)

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[NEED Teacher Resources](#)

The Educator section of the NEED website features a collection of teacher resources.

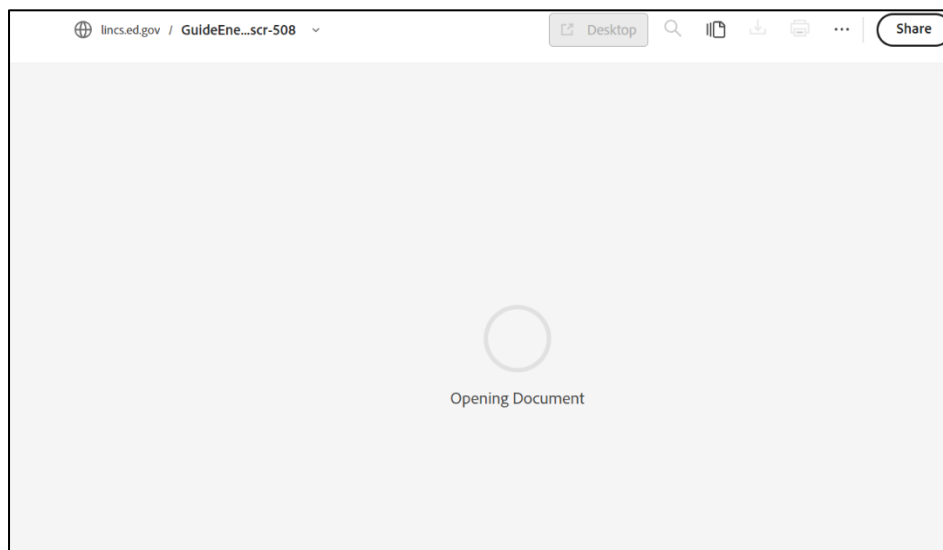
[Climate Change Resources](#)

The U.S. Environmental Protection Agency maintains a page of Climate Change Resources for educators and students.

[CLEAN: Principle 2](#)

For more information about the science behind this principle and a catalog of activities searchable by level to teach this principle, visit the page for Principle 2 on the CLEAN website.

4. Videos transcript links



Issue Description: None of the transcript links opened any documents during assessment.

Screen(s): Globally

Recommendation: Ensure transcript link is not broken and functions as expected.

Success Criteria: Functional

[Revalidation 03/01/24] – Same result as reported

Follow up: ITAP determined this as not an issue in a 4/16/2024 meeting. – (Carolyn Lampila)

5. Untagged PDF's

Issue Description: PDF's does not contain semantic tags, rendering it not accessible.

Note: We noticed most of the documents not being 508 compliance, ITAP has a separate assessment team who will look after the documents testing please reach Denise.McGland@ed.gov for further assistance

PDF(s): Globally

Recommendation: Ensure all PDF documents have tag structure.

Success Criteria: 1.3.1 Info & Relationships

Impact: **Critical**

[Revalidation 03/01/24] – Issue has been closed

PT statement “Our contract partners conducted 508 compliance reviews of all PDFs (course handouts and transcripts) were reviewed for accessibility, and compliance reports are linked within a hidden (non-student) module within the course”

508 Issue Ratings (severity)

Critical

This issue results in blocked content for individuals with disabilities. Until a solution is implemented content may be completely inaccessible, making your organization vulnerable to legal action. Remediation should be a top priority.

Serious

This issue results in serious barriers for individuals with disabilities. Until a solution is implemented some content will be inaccessible, making your organization vulnerable to legal action. Users relying on Assistive Technology will experience significant frustration when attempting to access content. Remediation should be a priority.

Moderate

This issue results in some barriers for individuals with disabilities but would not prevent them from accessing fundamental elements or content. This might make your organization vulnerable to legal action. This issue must be resolved before a page can be considered fully compliant.

Minor

This is considered an Accessibility issue that yields less impact for users than a moderate issue. For a page to be considered fully compliant this issue must be resolved but can be dealt with last.