

Lesson outline

Module Title: An interactive and engaging elearning module for 6th grade learners

Authoring tool: Canvas LMS

Topic: Identify, classify natural resources and apply this knowledge to create a new hands-on real world project.

Target Audience: 6th grade students

Duration: 3 days (40 min each day) under teacher guidance

Delivery Mode: This course can be done in hybrid /online/ self paced/ in classroom

Problem Statement:

Only 16% of 6th graders demonstrate proficiency in classifying renewable and non-renewable resources. This knowledge gap makes it difficult for students to engage in more complex environmental topics later in the unit.

Solution:

To address the learning gap, an engaging eLearning module was developed using existing Canvas LMS features.

The course integrates **interactive content, collaboration, guided practice, formative assessments, and timely feedback**. By leveraging familiar tools and brief tutorials without introducing new technologies the solution ensures effective instruction within practical constraints.

Course Learning Goal:

By the end of the course, students will be able to identify, classify natural resources and apply this knowledge to create a new hands-on real world project with 80% accuracy.

Learning Objectives:

Module 1: Students will be able to identify and classify renewable and non renewable natural resources with at least 80% of accuracy.

Module 2: Students will be able to Compare and contrast renewable and non renewable resources with at least 80% of accuracy.

Module 3: Students will be able to create their own project (poster, slide deck, recorded video or any other their choice approved by teacher)

Day 1 (Module 1)-40mins

Building Foundational Knowledge and Understanding

Title: Warmup1 (5mins)

Content: knowledge check assignment

Purpose: Activate prior knowledge (Gagné) and support Bloom's remembering & understanding

Interaction:

Students define and provide examples; multiple response formats support UDL

Title: Video

Content: -A short introductory video on topic.

Purpose: Gain attention and present key concepts visually

Interaction: Audio, visuals, and captions

Title: Guided readings

Content: Age-appropriate external resources on topic

Purpose: Provide additional scaffolding and support UDL

Interaction: Independent reading, optional audio, peer discussion

Title: Collaborative Activity(15mins)

Content: Google Slides practice activity

Purpose:

Apply concepts (Bloom's application)

Reflect Gagné's guidance and performance stages
Reduce cognitive load through structured scaffolds

Interaction: Peer discussion and collaborative learning

Day 2 (Module 2) -40 mins

Practice and final Project preparation

Title: Warmup (5min)

Content: knowledge check assignment

Purpose: Reinforce retention and build confidence

Interaction: Individual responses (UDL supported)

Title: Practice quiz (15min)

Content: Formative quiz with immediate feedback

Purpose: Support Gagné's feedback stage

Enable multiple attempts for mastery

Progress across Bloom's levels

Interaction: Independent MCQ quiz in Canva

Title: Final Project Guideline(10min)

Content: Project overview and submission options

Purpose: Support UDL (choice and expression)

Clarify expectations through rubric and assessment guideline page available through Canvas.

Interaction: Class discussion, selection of preferred format

Title: Rough draft(10 mins)

Content: Initial project development

Purpose: Apply gradual release model

Provide teacher guidance before independent work

Interaction: Guided work with teacher support

Day 3 (Module 3) -40 mins

Application and Mastery

Title: Warmup(5 mins)

Content: knowledge check assignment

Purpose: Reinforcing metacognition and planning.

Interaction: Canvas assignment

Title: Project work time (35mins)

Content: Independent project development

Purpose: Apply higher-order thinking (Bloom's analysis, evaluation, creation)

Demonstrate learning through real-world application

Support Includes:

- Clear rubrics
- Examples
- Structured guidance
- Accessibility features (captions, flexible formats, intuitive navigation)

Interaction: Teacher support and peer collaboration

Instructional Design Rationale

Instead of isolating theory, the module demonstrates:

- **Backward Design** - Goal defined first, assessments aligned, activities built to prepare students for success.
- **Bloom's Taxonomy** -Progression from recall and classification to application and creation.
- **Gagne's Nine Events** - Attention, prior knowledge activation, guidance, practice, feedback, and performance integrated across sessions.

- [UDL](#) - Multiple means of representation (video, reading, visuals), action and expression (project choice), and engagement (collaboration, real-world relevance).
- [Accessibility & Inclusivity](#) - Captions, flexible pacing, scaffolded tasks, feedback tools, clear navigation, and multiple submission options.