

Interreg VI – A Italia - Österreich
Cooperation Program 2021 - 2027

Workshop Template - From Tree to Table

Interreg
Italia - Österreich



Co-funded by
the European Union

EDU-CIRC

Author: Alexander Berndt

Company: CUAS

Date: 16.06.2025

Version: 1.0

DOCUMENT APPROVAL

Name	Organization	Role	Action	Date
Alexander Berndt	CUAS	Lead	Approval	16.06.2025

DOCUMENT HISTORY

Version	Date	Modifications	Authors
V1.0	30.06.2025	Initial idea and workshop layout	Gehan Dasanayake
V1.1	09.07.2025	Workshop layout development	Gehan Dasanayake
V1.2	15.07.2025	Added wood strength bending tests	Gehan Dasanayake
V1.3			
V1.4			



Index

1. Introduction	3
1.1 Learning Objectives.....	3
1.2 Required Knowledge	3
2. Workshop Structure	3
2.1 Workshop Agenda	4
2.2 Required Equipment.....	5
2.3 Evaluation Framework.....	6
3. Detailed Explanation	6

1. Introduction

From Tree to Table is a short and interactive 2-hour workshop for students aged 12 to 15. It introduces the Life Cycle Assessment (LCA) of wood products using engaging visuals, hands-on activities, and teamwork.

Students explore how wood moves from forest to table, how different materials have different environmental impacts, and how smart design can reduce harm to the planet. By using eco points, strength scores, and creativity, teams will build model tables and present their choices.

1.1 Learning Objectives

By the end of the workshop, participants will be able to:

- Understand that many products come from trees
- Identify stages in the wood product life cycle
- Learn the basics of LCA using Eco Points and wood strength
- Work in teams to design and build a model using constraints
- Reflect on sustainable choices and creative reuse

1.2 Required Knowledge

No specialized background is required. However, participants will benefit from:

- Know basic materials (like wood, bamboo, plywood etc.)
- Can work in teams and share ideas
- Understand simple adding for points (math)

The workshop is designed to be accessible and engaging for students aged 12–15.

2. Workshop Structure

Table 1 Workshop Structure

Phase	Duration	Activities	Purpose	Materials
Opening	5 min	Introductions	Set tone, engage curiosity, introduce theme	Slides
Context Setting	5 min	Explain workshop objectives and Welcome quiz	Align expectations, establish relevance	Slides
Main Content	~1 hour 55 min	Wood Lifecycle Mapping, LCA mini-lecture, wood strength test, table build activity, poster creation, team presentation	Deliver key concepts and apply through interactive practice	Slides, videos, craft sticks, glue, weights, poster supplies

EDU-CIRC

Wrap-up	10 min	Team pitches, feedback collection	Consolidate learning, encourage critical thinking, gather improvements	Posters, feedback forms
---------	--------	-----------------------------------	--	-------------------------

2.1 Workshop Agenda

Table 2 Workshop Agenda

Phase	Duration	Activities	Purpose	Materials
Opening	5 min	Welcome, Introductions	Set tone, engage curiosity, introduce theme	Slides
Context Setting	5 min	Explain workshop objectives and Welcome quiz	Align expectations, establish relevance	Slides, videos
Benefits of Trees - Trees are Superheroes	10 min	Explore tree benefits – oxygen, homes, materials (3 short slides)	Highlight the importance of trees in our ecosystem	Slides
Life Cycle of Wood	10 min	Story Time: 6 Stages of Wood (Tree → Recycling), Puzzle reorder activity	Explain wood journeys and connect to LCA concepts	Slides
Wood Strength Comparison	15 min	Bending test results of five different wood materials (show videos)	Help students observe and compare strength differences between wood types; connect material properties to usage and sustainability	Bend test videos, sample data
What is LCA?	10 min	Explain Life Cycle Assessment & Eco Points	Introduce LCA and show how choices affect the planet	Slides
Build Challenge	45 min	Mini Table Build (Plan → Build → Track Eco Points, Strengths → Create Poster)	Apply learning through interactive challenge	Craft sticks, glue, weights, eco sheet, poster materials
Poster Task & Present	15 min	Teams create posters: names, materials, total points, why it's eco-friendly and present in class	Communicate and justify design visually	Poster paper, markers, LCA reference chart

EDU-CIRC

Wrap-up	10 min	Team Awards, “Eco Superpower	Consolidate learning, empower sustainable thinking	Posters, reflection slide, feedback forms
---------	--------	------------------------------	--	---

2.2 Required Equipment

Table 3 Required Equipment

Category	Item	Quantity	Purpose	Alternative Options	
Technology	Projector & screen	1 set	Present slides and visuals	Large monitor, flip charts	
	Laptop	1 unit	Run presentation and visuals	Tablet with HDMI adapter, shared desktop	
	Speakers	1 set	Audio for videos or sound-supported content	Built-in laptop speakers, no-audio option	
Materials	Craft sticks (multicolor)	250-piece pack/group	Hands-on building of model tables (legs, surface, joinery)	cardboard sticks	
	Craft Glue	1 bottle/group	Affordable, accessible material for scaled table builds	Glue sticks	
	Weights	1 set/group	Check strength of built tables	Weight labeled woolen blocks with	
	Poster paper	2 sheets/team	Visual presentation of team decisions and LCA strategy	A3/A2 papers	
	Wood sticks used for bending test	2-3 from each type (Labelled)	Visual presentation of different wood materials	N/A	
	Supplies	Markers, pens, pencils, erasers	1 set/team	Poster design, calculations, sketching, note-taking	N/A
		Scissors, glue, tape	1 set/team	Assembly of posters and model elements	N/A
Documentation	Handouts (LCA intro, wood types, rules)	1 set per participant	Reference for scoring, design, and impact decisions	QR code linking to Google Drive or shared folder	
	Reflection worksheets	1 per participant	Capture personal takeaways and critical thinking after the build	Google Forms, Padlet, Microsoft Forms	

EDU-CIRC

	Instruction sheets	1 per team	Provide instruction regarding build challenge	Tablets
	Evaluation sheets	1 sheet	Evaluating the build challenge	Tablet
Other	LCA Lifecycle Posters	2–4 posters around room	Reinforce understanding of the six stages of LCA	Projected slides, whiteboard diagram
	Full Slide Deck	1 master set (digital)	Guide participants through the entire workshop visually and clearly	Available via shared drive, USB stick, or printout handouts

2.3 Evaluation Framework

Table 4 Workshop Evaluation

Evaluation Type	Timing	Method	Key Metrics	Follow-up Actions
Immediate	End of workshop	Feedback forms	Satisfaction, objective achievement	Immediate improvements
Short-term	1-2 weeks later	Email survey	Knowledge retention, initial application	Provide additional resources
Long-term	3-6 months later	Interview/survey	Behaviour change, performance impact	Plan follow-up sessions

3. Detailed Explanation

3. Workshop Layout Explanation

3.1. Opening and Context Setting (10 min)

3.1.1. Activities:

- Welcome: Greet students and introduce the theme.
- Introductions: Each student shares their name and something made from wood.
- Icebreaker Quiz: “What Comes from Trees?” - Identify products made from trees.

3.1.2. Purpose:

- Set the tone and build an inclusive environment.
- Engage curiosity using real-life objects.
- Highlight the role of trees in everyday life.

3.1.3. Materials: Slides, whiteboard, video.

EDU-CIRC

3.2. Benefits of Trees - Trees are Superheroes (10 min)

3.2.1. Activities:

- Slide 1: Trees give oxygen – photosynthesis for kids.
- Slide 2: Trees provide animal homes.
- Slide 3: Trees give materials.

3.2.2. Purpose:

- Build admiration for trees.
- Link trees to human and animal life.
- Prepare for sustainability concepts.

3.2.3. Materials: Slides

3.3. Life Cycle of Wood (10 min)

3.3.1. Activities:

- Story Time: Visual journey from tree to recycled product.
- Puzzle Activity: Reorder wood cycle stages as a group game.

3.3.2. Purpose:

- Understand transformation of wood.
- Develop logical and sequential thinking.
- Connect with real-world wood product lifecycle.

3.3.3. Materials: Slides.

3.4. Strength Test of Different Wood Materials(15 min)

3.4.1. Activities

- Demonstration Setup: Present different wood samples (e.g., softwood, hardwood, plywood, MDF).
- 3-Point Bend Test: Show how each sample responds to applied force using a simple weight and support setup.
- Observation and Discussion: Students observe which wood bends, breaks, or holds firm; discuss why.

3.4.2. Purpose:

- Understand Material Differences: Show that not all wood is the same—different types have different strengths and flexibility.
- Introduce Simple Testing Concepts: Demonstrate real-world strength testing using the 3-point bend method.
- Encourage Critical Thinking: Prompt students to predict, observe, and reason why some materials perform better than others.

3.4.3. Materials:

- Pre-cut wood samples (same thickness, e.g., 20mm; various types: pine, oak, plywood, MDF, etc.)
- Support frame or simple stand for 3-point bend test

EDU-CIRC

- Weights
- Observation
- Optional: safety goggles and gloves for hands-on involvement

3.5. What is LCA? (15 min)

3.5.1. Activities:

- Explain LCA: Life Cycle Assessment = full journey of a product.
- Introducing Eco Points: Material impacts vary.
- Examples: Compare product choices for sustainability.

3.5.2. Purpose:

- Teach simplified LCA principles.
- Promote environmentally informed decisions.
- Prepare for build challenge.

3.5.3. Materials: Slides.

3.6. Build Challenge (45 min)

3.6.1. Activities:

- Plan: Choose stick types with point values.
- Build: Construct a table then check with different weights.
- Track: Record Eco Points for choices.
- Poster: Justify design choices.

3.6.2. Purpose:

- Hands-on learning through creativity.
- Practice resource budgeting.
- Foster teamwork and critical thinking.

3.6.3. Materials: Craft sticks, glue, weights, poster materials.

3.7. Poster Task & Present (15 min)

3.7.1. Activities:

- Create posters: Name, materials, points, eco-justification.
- Present to class: 1–2-minute group explanations.

3.7.2. Purpose:

- Develop communication and presentation skills.
- Share design thinking with peers.

3.7.3. Materials: Poster paper, markers, reference chart.

3.8. Wrap-up (10 min)

3.8.1. Activities:

- Awards: Greenest Design, Best Poster, etc.
- Reflection: “What’s your Eco Superpower?” or “One thing I will reuse...”

EDU-CIRC

- Collect student feedback.

3.8.2.Purpose:

- Celebrate learning and participation.
- Encourage sustainable habits.
- Improve future sessions with feedback.

3.8.3.Materials: Reflection slides, feedback forms, stickers/certificates.

4. Equipment & Purchasing Links

4.1. Craft Wooden Sticks Kit (Multicolor)

Natural craft sticks ideal for simulating table legs, surfaces, or joinery.

[Craft Sticks](#)

4.2. UHU Craft Glue 100 ml

[Glue](#)

4.3. Weight Set

[Weights](#)

4.4. Printed Posters

[Poster Images](#)

4.5. Wood Samples for Bending Test

[Purchase Link for Wood Samples](#)

Item No.	Material Name	Stick Type	Thickness (mm)	Width (mm)	Length (mm)	Quantity (pieces)
1	MDF Fire Retardant Oak Mix Veneer	Reclaimed	20	50	300	5
2	Bamboo Caramel 3L Side Pressed	Bamboo	20	50	300	5
3	Bamboo Tiger 3L Density	Bamboo	20	50	300	5
4	MDF Moisture-Resistant Oak Mix Veneer	Plywood	20	50	300	5
5	Solid Three Layers Panel Oak Rustic	Solid Wood	20	50	300	5