



Co-funded by
the European Union

Lesson Plan

Designed by Mgr. Hana Maxerova, Zakladni skola, Velehrad, okres Uherské Hradiste, Czech Republic

Title of Activity: Deforestation for Palm Oil – Environmental and Social Impacts	Subject area: Environmental Education, Global Education, Geography, Social Studies
Grade Level(s): 5th–9th Grade, 11+ (activities can be adapted for younger and older students)	Duration: 90 minutes or more

Learning objectives:

At the end of the activities:

- Students will understand what palm oil is and why it is widely used.
- Students will explain how palm oil production contributes to deforestation and the release of carbon dioxide.
- Students will analyze the environmental impacts of deforestation, including biodiversity loss, air pollution, and climate change.
- Students will explore how deforestation affects local communities and Indigenous people.
- Students will develop critical thinking by comparing arguments for and against palm oil production.
- Students will evaluate product labels to identify palm oil content.
- Students will collaborate in groups and participate in experiential, creative, and digital learning activities.
- Students will become aware of sustainable alternatives, certifications (e.g., RSPO), and responsible consumer choices.

Teaching Method:

Inquiry-based learning, experiential learning, cooperative learning, digital learning.

Teaching Techniques: Video analysis, group discussions, movement activities, product investigation, art tasks, map exploration, argumentation tasks, VR experiences, storyboard creation, gamification.

Materials / Resources / Technology use:

- Short videos and documentaries on palm oil
- Internet access, projector, speakers
- Worksheets: question “parking lot,” reflection sheet



Co-funded by
the European Union

- Product packaging with ingredient lists
- Optional: Palm Oil Scanner app (older students)
- Cones for movement game
- Art supplies (paper, crayons, scissors)
- iPads for Stop Motion animation
- VR headsets (optional)
- Google Earth Engine / Google Earth Timelapse
- StoryboardThat.com or Padlet for story creation
- Puzzle pieces showing RSPO certification logo
- Kahoot or Mentimeter quiz

Introduction:

The teacher shows two contrasting images: a lush tropical rainforest and a palm oil plantation with cleared land. Students are asked:

“What do you notice? What happened here?”

Students write questions and ideas on the “Parking Lot” board using coloured sticky notes. These questions will be revisited during the lesson and again at the end.

Step 1: Short Videos – Setting the Context

The teacher plays a short animated or documentary-style video introducing palm oil production, deforestation, and its environmental and social consequences.

Although the animated video is simple, it can serve as an effective motivation or visual introduction before students begin creating their own Stop Motion animation later in the lesson.

Students briefly discuss what they observed and what stood out to them.

Step 2: Product Investigation – Where Is Palm Oil Found?

- Students examine product labels to identify palm oil (“palm oil,” “palm kernel oil,” “vegetable oil”).
- Students may scan products using the **Palm Oil Scanner** app to compare sustainability levels.

Discussion: Why is palm oil used in so many everyday products?

Step 3: Movement Activity – Loggers vs. Local People

- Students are divided into two teams:
 - Loggers knock down cones (representing trees).
 - Local inhabitants rebuild them.
- After one minute, teams switch roles.

Discussion:

“What did you feel in each role? Who had more power? What happens in real forests when economic interests and environmental needs clash?”



Co-funded by
the European Union

Step 4: Art Activity – Visualising Deforestation Through Stop Motion

- Students draw or paint two contrasting scenes: a thriving rainforest and a deforested area.
- They cut out elements such as animals, trees, machinery, and palm plantations.
- Using an iPad, students create a collaborative **Stop Motion animation** showing the process of deforestation for palm oil and its consequences.

This activity helps students visualise environmental change over time and understand cause-and-effect relationships.

Step 5: VR or 360° Video Experience (Optional)

Students explore a palm oil plantation, harvesting process, or rainforest ecosystem using VR or 360° video.

Discussion:

“How different is this from what you expected? What emotions did the experience evoke?”

Step 6: Google Earth Exploration

- Using **Google Earth Engine**, students locate rainforests in Indonesia or Malaysia.
- Using **Google Earth Timelapse**, they observe how forest cover has changed over recent decades.

Reflection:

“What happened over the last 20 years? What might happen if deforestation continues at this pace?”

Step 7: Group Task – Arguments For and Against Palm Oil

Students work in groups to develop arguments:

- *For*: high yield, economic benefits, low production cost, employment
- *Against*: deforestation, habitat destruction, CO₂ emissions, land conflicts, biodiversity loss

Students may be given some argument cards and create their own additional points.

Groups discuss their arguments and present their conclusions to the class.

Step 8: Story Creation – Digital Narrative

Using StoryboardThat.com, Padlet, or traditional paper storyboards, students create a short story demonstrating:

- an animal losing its habitat,
- a community impacted by plantation expansion, or
- a consumer choosing more sustainable products.



Co-funded by
the European Union

Step 9: Certification – RSPO Logo Puzzle

Students assemble a puzzle forming the **RSPO certification logo**.

The teacher explains:

- What RSPO stands for
- Why certification exists
- How responsible consumer choices influence global supply chains.

Step 10: Knowledge Check – Kahoot or Mentimeter Quiz

The teacher runs a short digital quiz to reinforce key points from the videos, discussions, and activities.

Closure

Students return to the “Parking Lot” board and review their original questions:

- Which questions were answered?
- What important ideas did we learn?
- What surprised or shocked us?

Students complete a brief reflection sheet:

“What I don’t want to forget... What surprised me... What I want to learn more about...”

Assessment

- Observation of group collaboration
- Reflection sheet
- Product-label investigation
- Collective Stop Motion animation (final class video)
- Individual or group Stop Motion clips (if applicable)
- Participation in games and discussions
- Argumentation in group activity
- Digital quiz results
- Storyboard or Padlet presentation

References:

StopPalmovémuOleji.cz materials

Stop Palmovému Oleji. (n.d.). *Videa, materiály a informace o palmovém oleji*.

Retrieved from <https://www.stoppalmovemuoleji.cz/>

Animated film – deforestation for palm oil

FF LAB. (2019). *Animovaný film o kácení pralesa kvůli palmovému oleji* [Video].

YouTube. <https://www.youtube.com/watch?v=bB4FCD7az8o>

Documentary – Češi zachraňují deštné pralesy

Česká televize. (2019). *Češi zachraňují deštné pralesy* [Video]. YouTube.

<https://www.youtube.com/watch?v=TH7Mo7pFSpU>



Co-funded by
the European Union

Animated video – Protect Paradise

Greenpeace International. (2016). *Protect paradise: An animation about palm oil*

[Video]. YouTube. <https://www.youtube.com/watch?v=0o6WHN4NDTk>