



A Project on Raising Pre-Service English Language
Teachers' Awareness
on Social Justice¹

Environmental Education through CBI

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¹ <http://socialjusticeinelt.com/>

Week 1 Lesson Plan: Introduction

School/Institution: Muammer Dereli Science High School

Grade/Level: 10th Grade/B1

Duration: 40 minutes

Objectives

- Explaining the term “social justice”
- Introducing the Global Goals and Goal 12
- Explaining why the focus is on Goal 12
- Getting to know the students

Note: This lesson serves as an introductory lesson to the project; hence, its objectives only focus on introducing the fundamental terms rather than focusing on language and content objectives.

Materials

- Smartboard, PowerPoint presentation by the teacher (See Attachment A)
- A video by United Nations Foundation: “A Look at the Sustainable Development Goals”¹
- A video by The Global Goals: “The World's Largest Lesson”²

Disclaimer: Some parts of this lesson plan are adapted from *What World Do You Want in 2030?* lesson plan by World’s Largest Lesson³.

Procedures

Pre-Activities: The introduction of the teacher and what they aim to do.	Time Frame	Objective(s) Targeted
○ The English teacher of the class introduces “the assistant teacher” (this is what I chose to call myself) and leaves the class. The assistant teacher explains that they will have classes for the next few weeks on something a little out of their books.	3-2 minutes	
During activities: The introduction and explanation of basic terms.	Time Frame	Objective(s) Targeted
○ First, the teacher gives the students varying numbers of colored sticks and keeps most of them to themselves. Some students don’t get any sticks at all. The teacher	10 minutes	- Explaining the term “social justice”

¹ <https://www.youtube.com/watch?v=5G0ndS3uRdo&t=1s>

² <https://www.youtube.com/watch?v=cBxN9E5f7pc&t=16s>

³ <http://worldslargestlesson.globalgoals.org/all-lesson-plans/>

asks the students if this is fair. After the students provide an answer, the teacher tells the students this is about inequality and that people in some poor regions of the world cannot get enough resources while some others get more than they need. Then, the teacher introduces the term social justice and asks them if they know what it means. After the students' suggestions the teacher provides a few definitions to this term (See Appendix A, Slide 2).		
- After this, the teacher introduces the global goals. The teacher explains why we need the global goals, what is aimed to be achieved, and how these goals can be achieved (See Appendix A, Slides 3-4). - The teacher tells the students the way we currently live isn't sustainable as we are rapidly consuming the natural resources and using fossil fuels. The teacher also shows the students the video <i>World's Largest Lesson</i> to explain the how and why they can be a part of the solution. They also show the students <i>A Look at the Sustainable Development Goals</i> in order to help them understand what each goal tries to achieve.	10 minutes	- Introducing the Global Goals and Goal 12
- After this, the teacher tells the students they will be focusing on Goal 12: Responsible Consumption and Production during their lessons. The teacher tells them that they will focus on this goal, because our everyday actions have prominent impact on the environment (See Appendix A, Slide 9). They add that by achieving sustainability in our actions, we can help promote environmental sustainability; being conscious of our consumption is crucial to achieving a sustainable environment for the poorer regions of the world. - The teacher shows the targets of Goal 12 (See Appendix A, Slide 10) to provide a brief look on what they will be focusing on during the following weeks.	5 minutes	- Explaining why the focus is on Goal 12
Post Activities: Providing a timeline and getting to know the students.	Time Frame	Objective(s) Targeted
The teacher shows the students the schedule for their lessons and the dates for them so that the students would know when they will have a class with their assistant teacher (See Appendix A, Slide 11).	2-3 minutes	
In order to get to know the students, the teacher asks the students to tell their names and one thing they like about themselves or something they love to do.	10 minutes	-Getting to know the students

Reflection

I entered the class with my high school teacher so that he can introduce me to the class. He told them that I was a former student of his and that I will be having lessons with them as part of a project.

Most of the students listened to me intently during this first lesson. I guess they were curious since they never had an assistant teacher (This school isn't a host institutetopracticum students). When I introduced the global goals, I realized that none of the students heard of them before. I needed to provide a little extra information on these.

Prior to this lesson, I planned to focus on each of the targets of Goal 12; however, I opted to focus on just two them after the lesson in order to fully cover the targets chosen, namely **12.2 Sustainable Management and Use of Natural Resources** and **12.5 Substantially Reduce Waste Generation**.

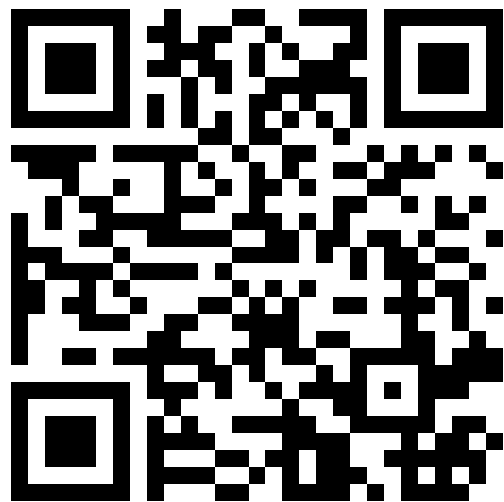
At the end, I told them I would be their teacher only if they wanted to become a part of this. They showed enthusiasm, one of them even said it would be awesome. Another student came and asked if I will come back to make sure I will show up in the following weeks, which was a rather pleasant gesture.

QR codes for the videos:

A Look at the Sustainable Development Goals:



The World's Largest Lesson:



SOCIAL JUSTICE & ENVIRONMENTAL EDUCATION

- What is social justice?
- What are the Global Goals?
- Why environmental education?
- What will we focus on?

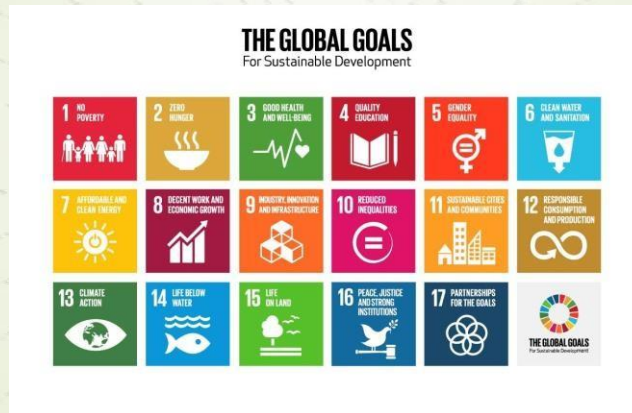


THE GLOBAL GOALS

What is social justice?

- **Social justice** is the equal access to wealth, opportunities, and privileges within a society.
(The PachamamaAlliance)
- **Social justice** is a political and philosophical concept which holds that all people should have equal access to wealth, health, wellbeing, justice and opportunity.
(Investopedia.com)
- This concept (**social justice**) demands that people have equal rights and opportunities; everyone, from the poorest person on the margins of society to the wealthiest deserves an even playing field.
(PracticalAction.org)

The Global Goals for Sustainable Development

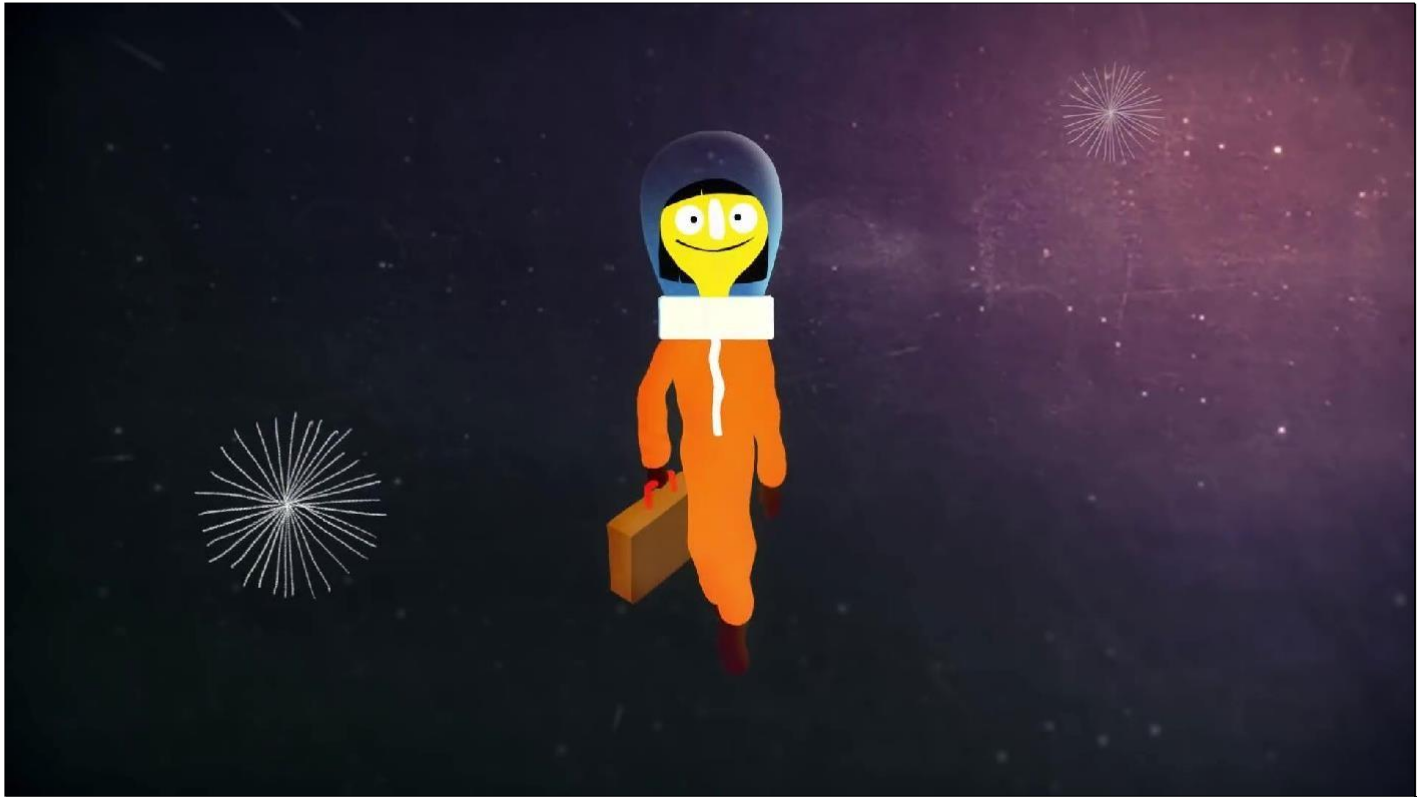


The Global Goals for Sustainable Development

- "In 2015, world leaders agreed to 17 goals for a better world by 2030.
- These goals have the power to
 - **end poverty,**
 - **fight inequality** and
 - **stop climate change.**
- Guided by the goals, it is now up to all of us, governments, businesses, civil society and the general public to work together to build a better future for everyone."

(GlobalGoals.org)



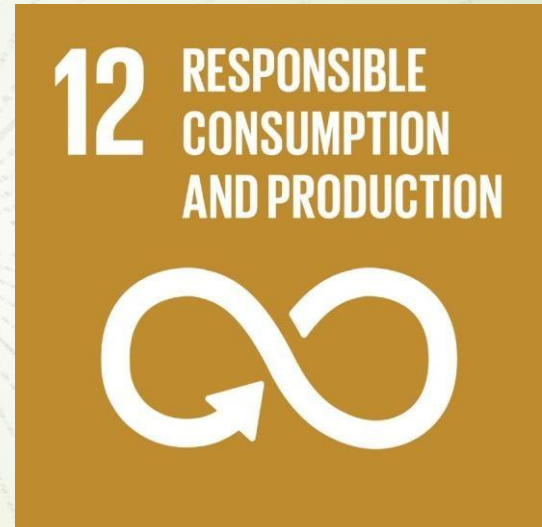


Slide 8



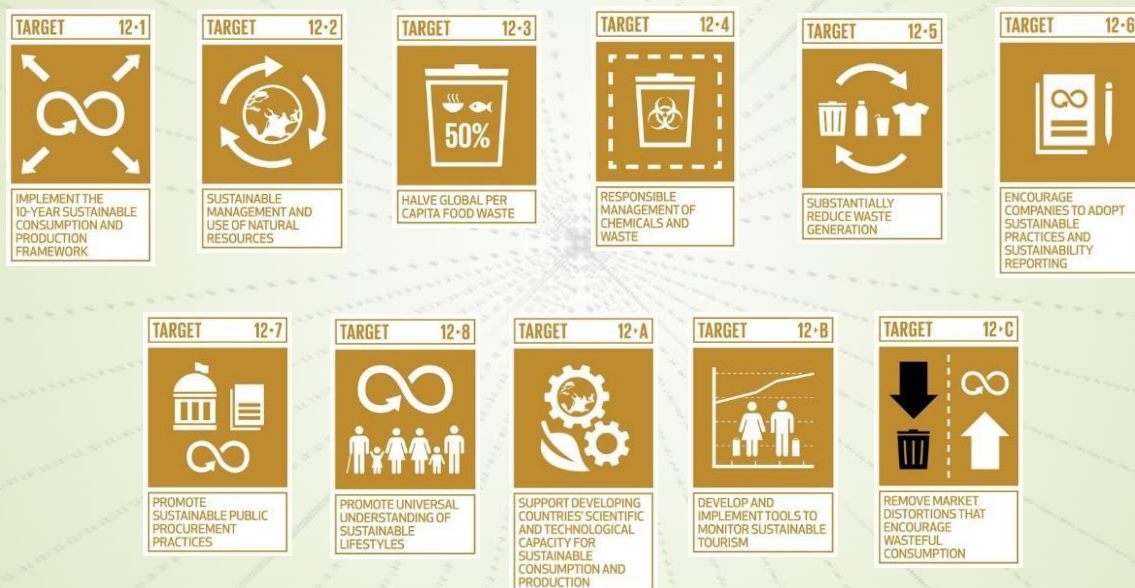
Why Goal 12?

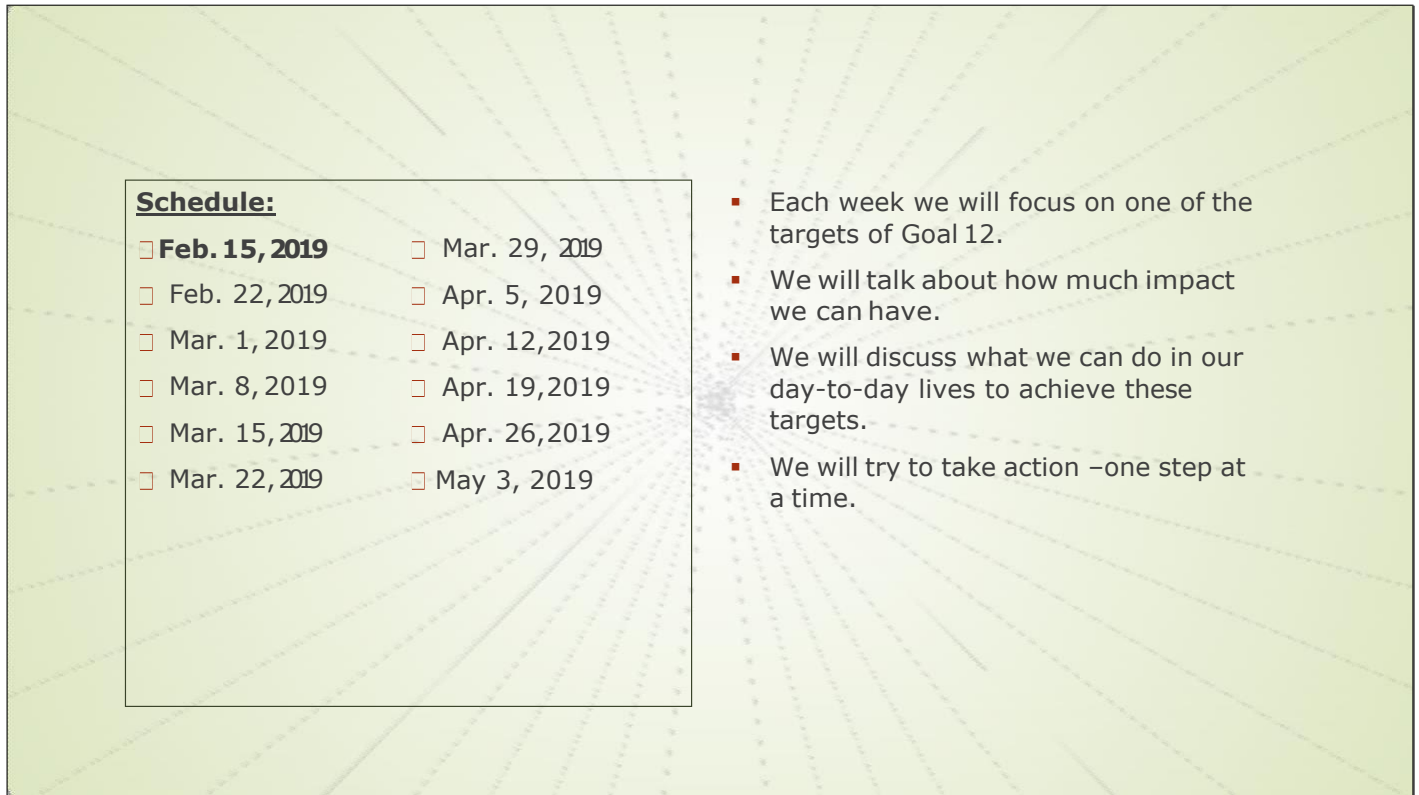
- Our everyday actions have prominent impact on the environment:
 - Achieving sustainability in our actions can help promote environmental sustainability.
- People living in the poor and underdeveloped countries suffer the most from the effects of climate change:
 - Being conscious of our consumption is crucial to achieving a sustainable environment for the poorer regions of the world.



Slide 10

Targets for Goal 12





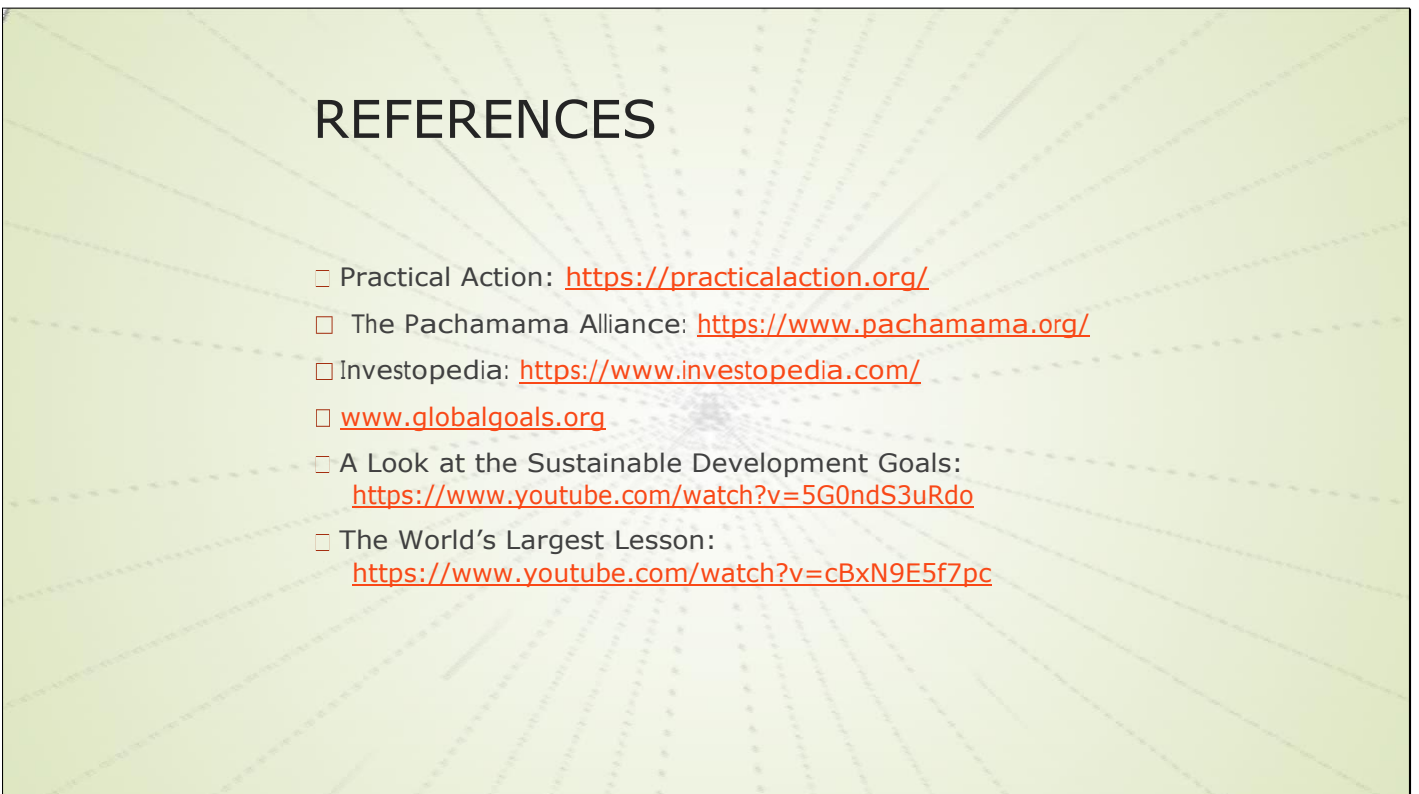
Slide 11 features a light green background with a subtle pattern of radiating lines and dots. A white-bordered box on the left contains the 'Schedule:' section, which lists dates from February 15 to May 3, 2019, in two columns. To the right of this box, four bullet points describe the focus for each week, centered on Goal 12 targets, impact, daily actions, and taking steps over time.

Schedule:

□ Feb. 15, 2019	□ Mar. 29, 2019
□ Feb. 22, 2019	□ Apr. 5, 2019
□ Mar. 1, 2019	□ Apr. 12, 2019
□ Mar. 8, 2019	□ Apr. 19, 2019
□ Mar. 15, 2019	□ Apr. 26, 2019
□ Mar. 22, 2019	□ May 3, 2019

- Each week we will focus on one of the targets of Goal 12.
- We will talk about how much impact we can have.
- We will discuss what we can do in our day-to-day lives to achieve these targets.
- We will try to take action –one step at a time.

Slide 12



Slide 12 has a light green background with a radiating pattern. The word 'REFERENCES' is centered at the top in a large, bold, black font. Below it, a list of six references is provided, each preceded by a small square icon and followed by a URL in red text.

REFERENCES

- Practical Action: <https://practicalaction.org/>
- The Pachamama Alliance: <https://www.pachamama.org/>
- Investopedia: <https://www.investopedia.com/>
- www.globalgoals.org
- A Look at the Sustainable Development Goals: <https://www.youtube.com/watch?v=5G0ndS3uRdo>
- The World's Largest Lesson: <https://www.youtube.com/watch?v=cBxN9E5f7pc>

Week 2 Lesson Plan: Lesson 1 on 12.2 Sustainable Management and Use of Natural Resources

School/Institution: Muammer Dereli Science High School

Grade/Level: 10th Grade/B1

Course: Skills Lesson

Duration: 40 minutes

Objectives

Content Objectives	Language Objectives
Students will talk about the consequences of their actions.	- If clause (Type 1) - Vocabulary related to natural resources
Other Objectives (e.g., Social Justice)	
- Students will calculate their ecological footprints. - Students will be able to express their opinions on how to reduce their ecological footprints.	

Materials: Smartboard, pencils, paper, smartphones (for the students to research)

Procedures

Pre-Activities: Introducing natural resources and bringing out the prior knowledge of the students.	Time Frame	Objective(s) Targeted
The teacher starts the lesson by asking the students what natural resources are and how many natural resources they know. The teacher lists them on the board and shows a list from the PowerPoint presentation they prepared (Appendix F, Slide 3).	5 minutes	-Vocabulary related to natural resources
- The teacher asks the students which of these resources are renewable and which are non-renewable. The teacher provides definitions for these as well (Appendix F, Slide 4) - Then, the teacher asks for what reasons and in what ways we use these resources. The teacher writes the students' answers next to each natural resource. Then, they show a chart to provide a broader list (Appendix F, Slide 5)	5 minutes	-Vocabulary related to natural resources
During activities: Getting the students involved in how to estimate their impact on the planet.	Time Frame	Objective(s) Targeted
The teacher introduces the term <i>ecological footprint</i> and asks the students to guess what it means. Then, the teacher provides a definition (Appendix F, Slide 7) building on the correct guesses (See Appendix A for the resources utilized in providing the definition).	10 minutes	-Students will calculate their ecological footprints.

The teacher explains that how we use the natural resources contribute to our ecological footprints. - The teacher asks the students to visit the website for ecological footprint calculation to calculate their footprints (See Appendix B). They answer the questions on the website and it shows them their ecological footprints. The teacher helps the students convert the units of measurement that the students are not familiar with (gallons to liters and miles to kilometers) - The teacher asks each of them to share their results with the class so that they can calculate the average for their class. Then, the teacher shows the students the average for Turkey through a website (See Appendix C). They also compare the difference between the ecological footprints per capita in different countries.		
- Then, they discuss what they can do to reduce their ecological footprint. The students brainstorm to come up with ideas to implement in their daily lives. They make suggestions and prepare a list of actions and their impacts on the board. - The teacher provides the first suggestion on the board to help students with their sentence structures to express their ideas (E.g. If I want to reduce my electricity bill, I should turn off the lights when I leave a room). - The students come up to the board and write their own suggestions.	10 minutes	- Talking about the consequences of their actions. - Expressing their opinions on how to reduce their ecological footprints. - If clause (Type 1)
Post Activities: Suggesting solutions and reflecting on the lesson.	Time Frame	Objective(s) Targeted
- The teacher shares some other tips with the students (Appendix E) to follow in order to decrease their ecological footprints (See Appendix D for utilized resources in preparing the tips). They talk about how to implement these tips and suggestions. - The teacher shares these tips and the picture of the suggestions on the board with the students through e-mail or a messaging service so that they can have a look on them whenever they want. - They reflect on the lesson and decide if they carried out a productive lesson.	10 minutes	- Expressing their opinions on how to reduce their ecological footprints.

Reflection

We started the lesson by talking about what natural resources are. I needed to make some clarification on what renewable and non-renewable meant. After this, I showed the students a green footprint (from the presentation) and asked them what this represented. They made some suggestions. I asked them if they know what ecological footprint is. One student said that it would be the opposite of carbon footprint. I explained that ecological footprint isn't the opposite of carbon footprint and, in fact, it is a broader term including the carbon footprint within itself. On the board, I wrote carbon footprint, drew a wider circle around it, and wrote ecological footprint to get the students to understand this concept better.

When calculating their ecological footprints most of the students were shocked to see how many Earths we would need if everyone lived like them. The website also showed the personal Earth Overshoot Day for everyone. Some students asked what this meant. I explained that Earth Overshoot Day is the day that we finish up all the natural resources we are supposed to consume within the span of 365 days. I added that we are using our natural resources faster than the nature can regenerate them. I asked the students to take screenshots of their results and send them to me so that we can calculate their average result. I postponed sharing the results to the following lesson as some students didn't have their phones with them (I shared the results at the beginning of our lesson the following week and it allowed me to better introduce the topic for that week).

Towards the end, I returned to the natural resources list from my presentation and asked the students what we can do at home to reduce our use of these resources. I wrote their suggestions, but they didn't provide many. Unfortunately, I couldn't get the students to write their answers on the board (and use If clauses in their sentences) as we were running out of time. Then, I showed them my tips and suggestions list and explained some of them.

I felt like some students were a little bored at certain points in the lesson. However, they showed real interest in the Ecological Footprint Explorer that presented the ecological footprints and bio capacity of every country. Some students viewed different statistics from the map when the lesson ended and had fun with it.

Appendix A:

https://wwf.panda.org/knowledge_hub/teacher_resources/webfieldtrips/ecological_balance/e_co_footprint/

<https://www.britannica.com/science/ecological-footprint>

Appendix B:

<https://www.footprintcalculator.org/>

Appendix C:

Ecological Footprint Explorer: <http://data.footprintnetwork.org/#/>

Appendix D:

170 actions list (goal 12): <http://www.youneedtoknow.ch/>

The Lazy Person's Guide to Saving the World: <https://www.un.org/sustainabledevelopment/takeaction/>

Reduce your footprint: http://myfootprint.org/en/take_action/reduce_your_footprint/

Appendix E

TIPS & SUGGESTIONS TO REDUCE YOUR ECOLOGICAL FOOTPRINT¹

➤ WATER

- Keep showers short. Bathtubs require gallons more water than a 5-10 minute shower.
- Do a cold wash. Warm water uses more energy. (While washing your hands, while handwashing the dishes, etc.)
- When you wash your clothes, make sure the load is full (Don't run the washing machine half-empty).
- Wash the dishes in a dishwasher.
- Don't rinse. If you use a dishwasher, stop rinsing your plates before you run the machine.
- Find water leaks (like a dripping faucet) in your house and fix them.
- Wash cars rarely, or better yet, take them to a carwash.

➤ ELECTRICITY

- Save electricity by plugging appliances into a power strip and turning them off completely when not in use, including your computer.
- Turn off the lights. Your TV or computer screen provides a cozy glow, so turn off other lights if you don't need them.
- Air dry. Let your hair and clothes dry naturally instead of running a machine.
- Avoid pre-heating the oven. Unless you need a precise baking temperature, start heating your food right when you turn on the oven.
- Defrost your refrigerator and freezer regularly.
- Replace old appliances with energy efficient models and light bulbs.

➤ FOSSIL FUELS

- Adjust your thermostat, lower in winter, higher in summer.
- Get a rug. Carpets and rugs keep your house warm and your thermostat low.
- Bike, walk or take public transport whenever possible.
- Maintain your car. A well-tuned car will emit fewer toxic fumes.
- Plug air leaks in windows and doors to increase energy efficiency.

¹ Resources:

170 actions list (Goal 12): <http://www.youneedtoknow.ch/>

The Lazy Person's Guide to Saving the World: <https://www.un.org/sustainabledevelopment/takeaction/>

Reduce your footprint: http://myfootprint.org/en/take_action/reduce_your_footprint/

WEEK 2: OUR ECOLOGICAL FOOTPRINT

Feb, 22

Target 12.2 – Sustainable Management and Use
of Natural Resources

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



TARGET

12-2



**SUSTAINABLE
MANAGEMENT AND
USE OF NATURAL
RESOURCES**

What are natural resources?

- "Things that exist freely in nature. No human created them. "

(<http://www.eschooltoday.com/natural-resources/what-is-a-natural-resource.html>)

- "Natural resources are materials provided by the Earth that humans can use to make more complex (human-made) products."

<https://study.com/academy/lesson/what-are-natural-resources-definition-lesson-quiz.html>

- Natural Resources include:

- Water (seas and fresh water)

- Land

- Soils

- Rocks

- Forests (vegetation)

- Animals (including fish)

- Fossil fuels

- Minerals

<http://www.eschooltoday.com/natural-resources/what-is-a-natural-resource.html>

Renewable vs. Non-renewable

RENEWABLE RESOURCES

- The resources which are being continuously consumed by man but are renewed by nature constantly are called as Renewable Resources.

NON-RENEWABLE RESOURCES

- The Non-Renewable resources do not replenish and cannot be renewed. It took thousands of years of time to form the non-renewable resources which exist inside the earth in the form of coal, fossil fuels, etc.

Visit <http://topdifferences.com/difference-between-renewable-resources-and-non-renewable-resources/> for further information.

How do we use natural resources?

Natural Resource	Products or Services
Air	Wind energy, tires
Animals	Foods (milk, cheese, steak, bacon) and clothing (wool sweaters, silk shirts, leather belts)
Coal	Electricity
Minerals	Coins, wire, steel, aluminum cans, jewelry
Natural gas	Electricity, heating
Oil	Electricity, fuel for cars and airplanes, plastic
Plants	Wood, paper, cotton clothing, fruits, vegetables
Sunlight	Solar power, photosynthesis
Water	Hydroelectric energy, drinking, cleaning

Retrieved from: <https://study.com/academy/lesson/what-are-natural-resources-definition-lesson-quiz.html>

What does this image represent? What does it look like?



Image retrieved from: <https://digest.bps.org.uk/2011/05/03/ecological-footprint-feedback-can-make-some-people-less-green/>

ECOLOGICAL FOOTPRINT

What is ecological footprint?

- It is the amount of the environment (the biologically productive land and sea area) necessary
 - to produce the goods and services necessary to support a particular lifestyle, and
 - to produce the waste generated by this lifestyle.
- https://wwf.panda.org/knowledge_hub/teacher_resources/webfieldtrips/ecological_balance/eco_footprint/
- <https://www.britannica.com/science/ecological-footprint>

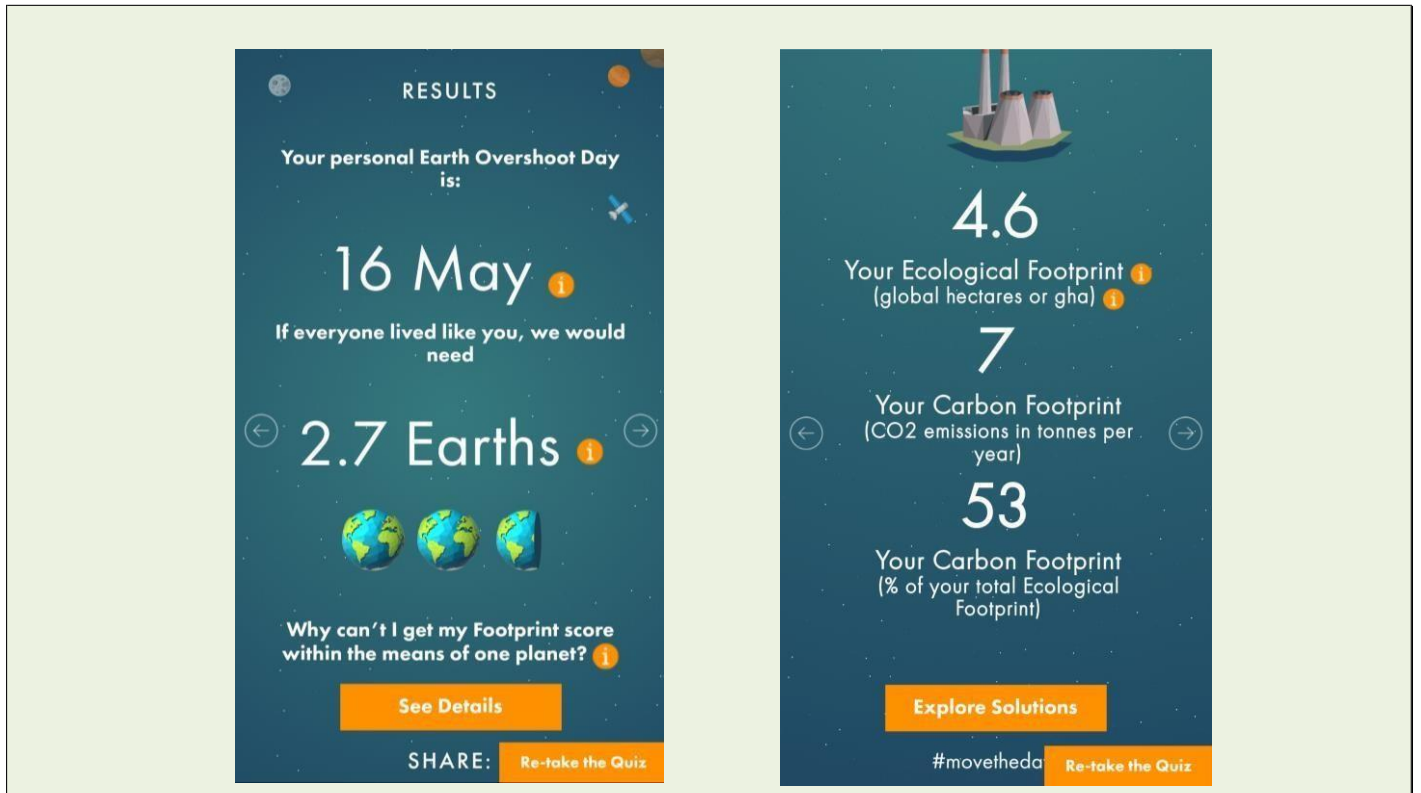


Image retrieved from
<http://cukenew.blogspot.com/2016/02/on-our-expanded-ecological-footprint.html>

- Calculating our footprint: <https://www.footprintcalculator.org/>
- Footprints per capita: <http://data.footprintnetwork.org/#/>

Appendix F

Slide 9



Slide 10

- ☐ What is the gap between our average ecological footprint in the class and the ecological footprint per capita for Turkey?
- ☐ What is the gap between developed countries and poor countries?

“People in rich countries consume **up to 10 times more** natural resources than those in the poorest countries.”

From: OVERCONSUMPTION? Our use of the world's natural resources.

Resources

- SERI Sustainable Europe Research Institute & Global 2000 & Friends of the Earth Austria.
OVERCONSUMPTION? Our use of the world's natural resources, p. 3.
- ▮ Schaefer, F., Luksch, U., Steinbach, N., Cabeça, J., & Hanauer, J. *Ecological Footprint and Biocapacity: The world's ability to regenerate resources and absorb waste in a limited time period*. Luxembourg: Office for Official Publications of the European Communities, 2006: European Communities, p. 4.
- ▮ <https://www.footprintnetwork.org/resources/glossary/>
- ▮ <https://study.com/academy/lesson/what-are-natural-resources-definition-lesson-quiz.html>
- ▮ <http://www.eschooltoday.com/natural-resources/what-is-a-natural-resource.html>
- ▮ <http://topdifferences.com/difference-between-renewable-resources-and-non-renewable-resources/>
- ▮ <https://digest.bps.org.uk/2011/05/03/ecological-footprint-feedback-can-make-some-people-less-green/>
- [https://wwf.panda.org/knowledge_hub/teacher_resources/webfieldtrips/ecological_balance/e_co_footprint/](https://wwf.panda.org/knowledge_hub/teacher_resources/webfieldtrips/ecological_balance/ecological_balance/e_co_footprint/)
- <https://www.britannica.com/science/ecological-footprint>

Week 3 Lesson Plan: Lesson 2 on 12.2 Sustainable Management and Use of Natural Resources

School/Institution: Muammer Dereli Science High School

Grade/Level: 10th Grade/B1

Course: Skills Lesson

Duration: 40 minutes

Objectives

Content Objectives	Language Objectives
Students will be able to talk about how things are produced.	Passive voice
Other Objectives (e.g., Social Justice)	
- Using natural resources sustainably and reducing our ecological footprint. - Students will be able to express their ideas on ways to reduce their ecological footprint caused by the products they use. - Students will talk about conscious shopping.	

Materials

- Materials: Smartboard, whiteboard, pencils, Ecological Footprint Perspective- Concept Mapping Activity Worksheet¹,
- A video by Ted-Ed: "The life cycle of a t-shirt - Angel Chang",²
- A video by National Geographic: "How Your T-Shirt Can Make a Difference"³

Disclaimer: This lesson plan is adapted from *Mapping Our Stuff: Where Does it Come From and How Much Energy Did it Take to Produce?* lesson plan by AK EnergySmart.⁴

Procedures

Pre-Activities: Introduction to the lesson.	Time Frame	Objective(s) Targeted
The teacher asks the students to look at the labels of the items around them and check where they were made. She asks them how many of these items are made or produced locally or within the country and which ones are imported.	5 minutes	-Students will be able to talk about how things are produced.

¹ Retrieved from: <http://www.akenergysmart.org/lesson-plans/9-12/> (Mapping Our Stuff: Where Does It Come From and How Much Energy Did it Take to Produce?)

² https://www.youtube.com/watch?v=BiSYoeqb_VY

³ <https://www.youtube.com/watch?v=xEEExMcjSkwA>

⁴ <http://www.akenergysmart.org/lesson-plans/9-12/>

- The students discuss the processes the imported items would have gone through and the factors contributing to their ecological footprint.		
During activities: Practicing how to map an item.	Time Frame	Objective(s) Targeted
- Then, the teacher shows the students the concept map worksheet (See Appendix A) and explains how to fill it. In order to present an example as to how they should carry out this task, the teacher uses a t-shirt to complete the concept map. - The students form groups of 3 or 4 and choose an item that they use in their daily lives. They brainstorm and create a concept map in order to see how many resources are used during the process of producing and transporting this item. - The students share their concept maps with the whole class. - They discuss how all the processes involved contribute to their ecological footprint. - She shows a video explaining the production process of a t-shirt by Ted-ED. After they watch the video, the teacher explains terms such as polyester and micro plastics. - They talk about how the clothes they buy affect people around the globe. - The teacher asks the students to question what kind of a t-shirt is more sustainable and more consciously made. The teacher asks them how we can reduce our ecological footprints when buying clothes. - She shows the students the video by National Geographic to how they can use their clothes more sustainably.	30 minutes	- Students will be able to talk about how things are produced. - Passive voice - Using natural resources sustainably and reducing our ecological footprint. - Expressing their ideas on ways to reduce their ecological footprint caused by the products they use. - Conscious shopping.
Post Activities:	Time Frame	Objective(s) Targeted
- The teacher asks the students what they do with their old clothes. They discuss ways in which they can utilize their old clothes.	5 minutes	- Expressing their ideas on ways to reduce their ecological footprint caused by the products they use.

Reflection

The students were pretty active during this lesson. They seemed to be quite interested in the activity worksheet and researched for the information they needed. They frequently asked questions as to how they should fill in the social impacts column. I provided suggestions according to the item they chose. Most of the students endeavored to find as much information as they could to complete their concept maps.

Unfortunately it wasn't possible to have each group present their concept map to the whole class. Only one group could present their concept map, since the others were not willing to talk in front of the class and we were running out of time.

Both videos I presented mentioned that 2700 liters of water were required for one cotton t-shirt. One of the students didn't believe this as he thought it was "too much". I suggested that he should check this fact from other resources as well.

QR Codes for the videos:

The life cycle of a t-shirt - Angel Chang:



How Your T-Shirt Can Make a Difference:

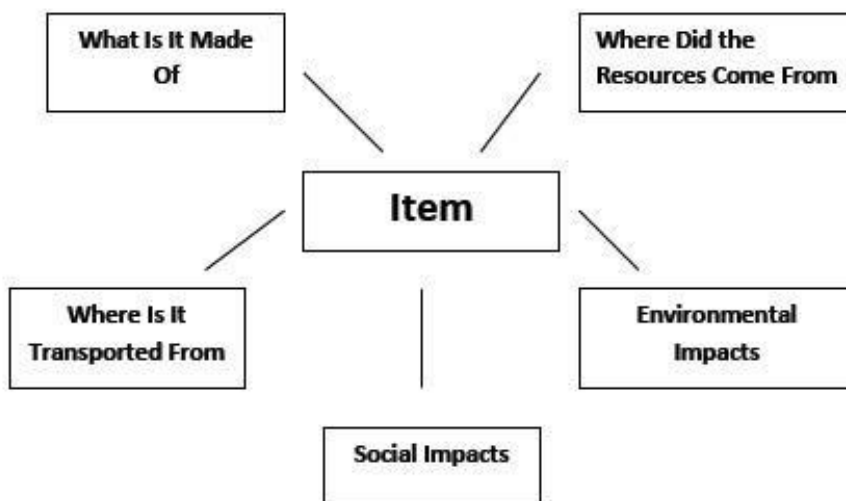


Appendix A



Ecological Footprint Perspective—Concept Mapping Activity

Item	What Is It Made of (Resources used to produce it)	Where Did The Resources Come From	Where Is It Transported From	Environmental Impacts (positive and negative)	Social Impacts (positive and negative)



AK EnergySmart: Mapping Our Stuff: Where Does it Come From and How Much Energy Did it Take to Produce?

Week 4 Lesson Plan: Lesson 3 on 12.2 Sustainable Management and Use of Natural Resources

School/Institution: Muammer Dereli Science High School

Grade/Level: 10th Grade/B1

Course: Skills Lesson

Duration: 80 minutes

Objectives

Content Objectives	Language Objectives
Students will discuss what people need to buy, can buy, or should buy based on their readings.	Modal verbs: Need, Can, Should
Other Objectives (e.g., Social Justice)	
- Students will discuss the inequities between the families in different countries. - Students will discuss the impacts of consumerism and commercialism.	

Materials

- Resource Racket: Group Discussion Questions Handout
- Family Profile Handouts
- The Culture of Commercialism: A Critique Handout¹

Disclaimer: This lesson plan is adapted from *The Resource Racket: A Global Perspective on Resources and Consumption* lesson plan by Media Awareness Network².

Procedures

Pre-Activities: Introducing the topic and preparing the class to study.	Time Frame	Objective(s) Targeted
- The teacher greets the students and tells them they will work in groups during that lesson. Before starting to work in groups the teacher asks some questions to the students to prepare them to the task they will carry out (See Appendix A). The students form groups of 3-4. - The teacher says they will give each group a family profile to study and that each family exists in real life in the country written on the hand out.	5 minutes	-Introductory part

¹ All handouts were retrieved from: <https://www.bestlibrary.org/ss11/files/The-Resource-Racket-A-Global-Perspective-on-Resources-and-Consumption-Lesson-Kit.pdf>

² <https://www.bestlibrary.org/ss11/files/The-Resource-Racket-A-Global-Perspective-on-Resources-and-Consumption-Lesson-Kit.pdf> (Note: The original website <http://media-awareness.ca> has become <http://mediasmarts.ca/> and the lesson plan doesn't exist on that website.)

○ The teacher gives each group a family profile handout (See Appendix B for the 6 family profiles studied in class) and a group discussion questions handout (See Appendix C).		
During activities: Group discussions and sharing the answers with the class.	Time Frame	Objective(s) Targeted
○ The groups work on their own studying the family profiles they have. They try to come up with answers to the questions on the group discussion handout. ○ If the groups cannot understand a statement or a word, the teacher provides assistance.	15 minutes	-Students will discuss what people need to buy, can buy, or should buy based on their readings.
○ After the groups finish working on their handouts, one representative from each group shares their answers with the whole class. First, they provide the background information regarding the family profile they have (the number of family members, their possessions, their wishes for the future, etc.) Then, they provide their answers to the discussion questions. When necessary, the teacher asks why they think this family should or need to buy which item from the potential purchases list. ○ Based on the families' incomes, the likelihood of the purchases are discussed as well (whether the family can buy these items with the income they have). The teacher tries to push the students to use the modal verbs as much as possible in their explanations.	20 minutes	-Students will discuss what people need to buy, can buy, or should buy based on their readings. -Modal verbs: Need, Can, Should - Students will discuss the inequities between the families in different countries.
○ After the break, the teacher gives the students The Culture of Commercialism: A Critique Handout (See Appendix D). The students read this critique on their own silently. When the finish reading, the teacher shows the text through the smartboard and reads the first two paragraphs of the text out loud to draw the students' attention to these.	10 minutes	-Introductory part
○ With the preliminary information from the text and the students' own experiences, they discuss the questions right underneath the critique (See Appendix D).	20 minutes	-Students will discuss the impacts of consumerism and commercialism.
Post Activities: Wrapping up the lesson.	Time Frame	Objective(s) Targeted

○ When the discussion is over, they have a look on the summary text under the discussion questions (Appendix D). The teacher asks the students if they would like to share any further thoughts on consumerism or commercialism before finishing the lesson.	10 minutes	-Students will discuss the impacts of consumerism and commercialism.
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Reflection

I was highly satisfied with how this lesson proceeded. Both lesson hours included discussion sessions. All the groups shared their answers to the group discussion questions and this helped me ask comprehension questions to the students.

During the discussion questions in the second lesson, the students provided examples to some of the questions. For example, while discussing how ads are misleading, one student complained about how French fries were never served as generously as the ads suggest.

One thing that I regret is that we couldn't manage to get to the summary text at the end Appendix D since the group discussion questions from the first lesson hour extended into the second lesson. That text would have enabled a better wrap up to the lesson.

Appendix A

Guided Discussion

Ask students to consider the following questions. (You might wish to conduct a discussion with the class as a whole; or ask students to write their responses as a homework assignment; or assign small groups specific questions to discuss and present to the class.)

- What are the essential needs of families everywhere? (Examples include clean water, adequate food, a home, warm clothes, access to medical care.)
- Of the families we studied, which spend their time and income primarily on essential needs? Which have more time and income to spend on other, nonessential items or activities?
- Once their basic needs are met, are most families satisfied with what they have, or do they usually want more?
- Does commercialism affect our desire for material goods? (Yes, commercialism stimulates artificial wants.)
- Do you think that American families are exposed to more or less commercialism than families in most other countries?
- How could commercialism affect the environment? (By stimulating increased consumption of material goods and thus increased consumption of natural resources and increased environmental impacts.)
- How might a high level of commercialism affect a country and its culture?

Appendix B

Family Profile 1:

GERMANY

Population: 81.3million Populationperphysician: 370

Literacy rate: notavailable

Rank of affluence among United Nations members: 14

The Pfitzner Family

Size of family: 4 Size of home: 925 sq. ft.

Workweek: father - 40hoursmother - 50hours, allathome

Per person income: \$19204

Percentage of income spent on food: 40%

The lives of the Pfitzner family are in many ways much like those of an average family in the U.S., and they family's home, appliances, and toys are much like ours.

Number of:

radios - 3

tape recorders - 1

televisions - 1

VCRs - 1

video cameras - 1

motorcycles - 1

automobiles - 1

Most valued possessions: family memorabilia (parents)

Wishes for the future: new refrigerator, house in the country, cleaner environment

Family Profile 2:

GUATEMALA

Population: 10.6million Populationperphysician: 2,256

Literacy rate: female - 66%; male - 61%

Rank of affluence among United Nations members: 114

The Calabay Sicay Family

Size of family: 5 Size of home: 316 sq. ft.

Workweek: father - 60hoursmother - "constantly"

Per person income: \$944

Percentage of income spent on food: 66%

The Calabay Sicays are a Mayan family who have never been more than 30 miles from their home. They garden, catch fish in the nearby lake, and weave cloth from which they make most of their worn clothes, blankets, and carrying bags.

Number of:

radios - 1
telephones - 0
televisions - 0
automobiles - 0

Most valued possessions: portable cassette player (father) religious painting, Bible (mother) dolls (daughters) soccer ball (son)

Wishes for the future: "to stay alive" also television, pots and pan, kitchen table

Family Profile 3:

ALBANIA

Population: 3.4 million Population per physician: 719

Literacy rate: 99%

Rank of affluence among United Nations members: 103

The Cakoni Family

Size of family: 6 Size of home: 432 sq. ft.

Workweek: father - 84 hours mother - 21- 28 hours per week Per person income: \$1,200

Percentage of income spent on food: 100%

The Cakoni family cooks in pots made from large tin cans, with wire handles. Their water supply is a daily 40 minute donkey ride. The children walk three hours round trip to school each day. On television, they watch programs from neighbouring Italy, a much more affluent nation.

Number of:

radios - 1
telephones - 0
televisions - 1
VCRs - 0
bicycles - 0
automobiles - 0

Most valued possessions: TV (for all)

Wishes for the future: (not stated)

Family Profile 4:

SOUTH AFRICA

Population: 42.7 million Population per physician: 1640

Literacy rate: not available

Rank of affluence among United Nations members: 58

The Qampie Family

Size of family: 7 Size of home: 400 sq. ft.

Workweek: father - 40 hours mother - 10 hours plus housework

Per person income: \$2,543

Percentage of income spent on food: 34%

The township in which the Qampie family lives is permeated by violence. By 8:00 p.m., the family stops venturing outside, even to their backyard outhouse. They close up the house and lock it up tight, although this makes it sweltering hot inside.

Number of:

radios - 1

telephones - 1 (broken)

televisions - 1

VCRs - 0

automobiles - 0

Most valued possessions: (not stated)

Wishes for the future: typewriter, computer (children) house, car (parents)

Family Profile 5:

RUSSIA

Population: 149.7million Population per physician: 210

Literacy rate: 99%

Rank of affluence among United Nations members: 48

The Kapralov Family

Size of family: 3 Size of home: 1500 sq. ft.

Workweek: father - (deceased) mother - 42 hours plus housework

Per person income: \$3,469

Percentage of income spent on food: 60%

Although Mr. Kapralov was recently killed by thieves, the rest of the family must continue their lives. The children play in the snow, take music lessons, and play chess and other games.

Number of:

radios - 2

stereos - 1

telephones - 2

televisions - 2

VCRs - 0

automobiles - 1 (broken)

Most valued possessions: domra - a musical instrument (mother) Video games, books, stuffed animal, Barbie doll (daughters)

Wishes for the future: to repair the family car so that it can be used

Family Profile 6:

KUWAIT

Population: 1.2 million Population per physician: 238

Literacy rate: female - 67%; male 77%

Rank of affluence among United Nations members: 21

The Abdulla Family

Size of family: 7 Size of home: 4850 sq. ft.

Workweek: father - 50 hours first daughter - 60 hours second daughter - 45 hours Per person income: \$16,380*

Percentage of income spent on food: 29%

Its petroleum reserves have made Kuwait one of the richest nations on Earth. As his children in their teens and 20's watch MTV on the satellite dish, shop at the mall, and cruise the freeways talking on their cellular phones, Mr. Abdulla worries that Kuwait has become such a consumption-oriented society.

Number of:

radios - 4

telephones - 5

televisions - 2

VCRs - 2

computers - 1

automobiles - 4

Most valued possessions: (not stated)

Wishes for the future: fishing boat, more income, more vacation time

**Income figure includes "guest-workers" of other nationalities, many of whom are servants for Kuwaitis, such as the two live-in servants who work for the Abdullas.*

Appendix C

Resource Racket: Group Discussion Questions

A. Review the information on the family assigned to your group, including their lives in general as well as their annual per capita income and the percentage of their income used to purchase food. Then discuss these questions in relation to each item on the *Potential Purchases* list:

- Do you think that having this item would be very meaningful or important to the family? Why or why not?
- Do you think that advertising and commercialism are likely to be significant influences on the family's desire for this item? Why or why not?
- Is it very likely that the family would purchase this item? Why or why not?

Potential Purchases:

- TV video game (Does the family have electricity? A television? Do you think they've ever seen a good video game before?)
- rice and beans (In most cultures, grains and legumes are the foundation of the traditional diet. They're cheap, tasty and healthy.)
- car or truck (Personal vehicles are expensive to own and operate. For the average American family, transportation is the second largest expense, after housing.)
- new cook pot or other kitchen item (Does the family cook on a wood fire or in a microwave? What new kitchen item do you think they would need or want?)
- shoes (What type of shoes and what features, such as durability or brand name, might be important to members of this family?)
- canned soft drinks (Canned sodas have no nutritional value and a large portion of their cost is packaging.)

B. Plan a brief presentation for the class. Include an overview of the family you studied. Select three or four items from the *Potential Purchases* list to focus your presentation on, choosing times that will give other students insight into the family's circumstances.

Appendix D

The Culture of Commercialism: A Critique

Are we immune to commercialism?

Each of us would like to believe that we're immune to the effects of advertising and commercialism. Maybe other people are affected by ads, but we ourselves are too smart, too savvy.

Yet are we really immune? A lot of evidence suggests that we are influenced. Think about the nationally-advertised products we buy, the style of our clothes, the kinds of food we eat, the attention we give to our appearance, and our encyclopedic knowledge of brand names. In these ways and others, our lives reflect the ads around us.

Over the years, the sophistication of marketing has increased a great deal. The messages that encourage us to buy are designed by creative, talented people. Modern scientific knowledge of human psychology and of how the brain processes visual information is used in developing ads. An array of technical equipment and resources is also used. Ads stalk to our conscious, rational mind and to our subconscious fears and desires.

Of course, no one would advocate a ban on marketing. Ads provide information that can be helpful to us as consumers. Ads increase our understanding of the product choices available to us. And in an economy based on free enterprise, ads play a vital role for the business community. Ads are a valid part of modern life.

Some people are concerned about all the advertising we're exposed to. They feel that the constant message to buy influences us in ways that are not to our benefit. One concern is that the message to buy overshadows other messages about helping each other, caring for our environment, and contributing to community.

What follows is a summary of concerns about the influence of commercialism in our lives. The information is not presented as an objective argument on the pros and cons of commercialism. In fact, this list and essay were put together by an organization that works to fight commercialism. Do you think these concerns are valid? Why or why not?

What are the effects of advertising and commercialism?

1. Commercialism distorts our culture by turning every event into a reason to consume. Anthropologists say that holidays reflect a culture's values. In America, every holiday is a sales event.
2. Advertising projects false images. For example, some ads imply that you're not cool unless you drive an expensive car, that smoking means you're an independent spirit, or that to be mature means drinking alcohol.

3. Commercialism contributes to environmental problems by encouraging wasteful use of natural resources. Over-packaging, disposable goods, and buying things we don't really need all contribute to unnecessary use of limited resources. The manufacture and disposal of the things we buy cause other environmental problems, including habitat loss and increased air and water pollution. Billboards cause visual pollution.
4. Advertising perpetuates stereotypes. Examples include stereotypes related to race (African-Americans as musicians and athletes), gender (women as sex objects, men as business people), and class (middle-class whites as the social norm).
5. Advertisers influence the content of publications and broadcasts. Government censorship of the media is illegal. Yet it is well documented that newspapers and other media are censored by advertisers. For example, a beer producer may pressure a magazine in which it buys ad space not to print articles on the dangers of drinking.
6. Corporate sponsorship of civic, environmental, or other non-profit groups may influence those groups. For example, tobacco industry contributions may discourage an organization from joining anti-smoking campaigns.
7. Commercialism has influenced our political process. Many politicians try to attract votes with an image created by advertising and media coverage. In the past, candidates tried to attract votes by their stand on the issues.
8. The public's perception of a company's activities and priorities can be distorted by image advertising. For example, ads can portray major polluters as environmentally conscious companies that give to worthy causes.
9. Advertising costs us money. Businesses pass many of their advertising costs on to us. Also, the price of a product increases when ads successfully cultivate the idea that a certain product can give us status or a cool image.
10. Ads cost us more in taxes, too. Advertising is a fully tax-deductible business expense. Because of this, state and federal treasuries receive billions of dollars less in business taxes each year. Tax rates for citizens must make up for this, so individual taxpayers indirectly subsidize advertising.
11. Ads can be misleading. They emphasize the benefits of products and services and ignore the drawbacks.
12. Ads encourage a brand-name mentality, or buying on the basis of the maker rather than quality or price.
13. Advertising fosters dissatisfaction, envy, and insecurity. It can make us feel unattractive, uncool, and unhappy with what we do or don't have.

14. Our commercialized society places a strong emphasis on appearance, encouraging us to care about our own and others' appearances rather than about characters, talents, and personalities.
15. Constant exposure to ads may encourage materialism and selfishness. This may make people less inclined to help others. Statistics show that giving to charitable causes has decreased in recent years. Similarly, there has been a decline in public support for government programs to aid the least fortunate members of our society.
16. Corporate sponsorship may influence content and undermine the objectivity of exhibits at science and art museums. For example, is an exhibit sponsored by a company that makes insecticides likely to examine human/insect relationships in a fair and balanced way?
17. Ads take a lot of our time. The average person spends almost an hour a day reading, watching, or listening to ads through TV, radio, theaters, videotapes, newspapers, magazines, mail, or telephone. By the time the average American is seventy-five years old, advertising will have taken four years of his or her life.
18. Paid product placements influence the content of movies, TV shows, books, and board games. This compromises artistic integrity.
19. Advertising promotes alcohol and tobacco use, which kill half a million Americans annually. Problems related to alcohol hurt more people's lives and cost society more money than all illegal drugs combined.
20. Marketers compile detailed electronic portraits of shoppers. Companies sell mailing lists for everything from foreign car ownership to sexual preference. These computer databases present a staggering potential for abuse.
21. Commercialism has spread into almost every aspect of life. Being unable to escape it is annoying to many.
22. Advertising aimed at young children intrudes on the parent-child relationship, can undermine parental authority, and can create friction in the home.
23. Commercialism may erode values - such as sharing, co-operation, and frugality - fostered by families, religious institutions, and schools.
24. Commercial foods and the ads for them tend to encourage unhealthy eating habits.
25. Commercialization of school materials and equipment may undermine objective, unbiased education.

26. Heavy promotion of shopping and buying distracts us from other activities such as reading, thinking, and playing. All the ads we're exposed to make it easy to forget how many different kinds of activities we enjoy.
27. Our commercialized culture encourages people to spend money that they don't really have. The number of Americans with financial problems has increased steadily in recent years.
28. Advertising implies that there's an easy solution to everything, from being healthy to having friends.
29. Many ads imply, even if they don't say outright, that happiness is something we can buy. When we act as though this is true, our personal horizons and ability to find fulfillment in life are limited.
30. Commercialism does not just promote specific products. It promotes consumption as a way of life.

What is the cumulative effect of all this commercialism?

Commercialism has clear parallels with industrial pollution. Just as modest amounts of waste can be absorbed by the natural environment, so modest amounts of commercialism can be assimilated by our cultural environment. Large amounts, however, can totally overwhelm either environment, and such is the case today. For decades we failed to recognize, let alone control, the harm caused by industrial practices. In some cases, such as air pollution from coal-burning furnaces, the problems were obvious but were either ignored or justified on the basis of short-term economic gain. In other cases, such as toxic chemicals that pollute the air and water, the dangers were not even recognized. So it is with commercialism: We excuse its obvious defects in the name of economic progress; we don't even try to identify more subtle effects. Again as with pollution several decades ago, the consequences of excessive commercialism remain unexamined and unproven. Our understanding rests on a handful of often preliminary or inconclusive academic studies. The fact is that, despite the dominance of commercialism in our culture, social scientists have barely begun to explore its nature and its consequences. Moreover, government regulatory programs are inadequate to contain commercialism. Agencies that focus on deceptive advertising have such small budgets—totalling only about one thousandth as much as what is spent on advertising—that only the most blatantly dishonest advertising can be stopped. Other forms of commercialism go completely unexamined. What, then, is the impact on our society, when, as *Advertising Age* [a technical journal for people who work in the advertising industry] wrote, "mass-media advertising explodes out of a shotgun and sprays everyone in its path, kids included"? And beyond advertising, what are the effects of living in a culture where even schools, museums, sports and non-commercial broadcasters have been commercialized? Does commercialism turn engaged citizens into mere consumers?

Week 5: Lesson 1 on 12.5 Substantially Reduce Waste Generation

An Instructive Session with an Environmental Engineer

School/Institution: Muammer Dereli Science High School

Grade: 10th Grade

Duration: 40 minutes

Guest: Ebrar Emin

Credentials: Ebrar Emin is an environmental engineer who graduated from Sakarya University in 2018. She did internships at İZAYDAŞ (waste management factory located in İzmit) and at the waste water treatment department İSU (water and sewerage administration of Kocaeli). She is currently a graduate student at the Sakarya University and she is teaching laboratory classes there.

Topic: Waste types, waste disposal, water treatment

Objectives

- Providing a general outline of what “waste” is for the students to better understand the following lessons.
- Familiarizing the students with waste types and waste disposal

Reflection

This session was carried out in Turkish, as it would be hard for the students to understand the terminology in English. I entered the class with my guest and told the students that we would be hosting an environmental engineer in class. Miss Emin introduced herself and explained why she was there (See Topic and Objectives).

Then she explained the types of waste: solid waste, chemical waste, radioactive waste, domestic waste, hazardous waste, etc. She told how each of these types of waste should be treated-how we should bin them and how they should be disposed of. She mentioned how these processes are carried out and how recycling is done in İZAYDAŞ.

She said that any type of paint is hard to separate from water. She told that once they received waste paint from an acknowledged brand at İZAYDAŞ, after the paint was disposed of, the smell stuck around for 15 days. This gripped the students' attention. The students asked questions whenever they wanted. Some asked questions such as what environmental engineers do.

The session continued with how waste water is treated, what techniques are used and how hard it is to purify water. Miss Emin explained certain terms with examples that the students would understand. She also briefly explained what composting is and what is compostable. The session served as an effective introduction to the second part of the project.

Week 6 Lesson Plan: Lesson 2 on 12.5 Substantially Reduce Waste Generation

School/Institution: Muammer Dereli Science High School

Grade/Level: 10th Grade/ B1

Duration: 40 minutes

Objectives

Content Objectives	Language Objectives
o Making cause and effect connections	o Conjunctions of cause and effect
Other Objectives (e.g., Social Justice)	
- o Raising awareness on how much waste we produce - o Discussing the relativity of the impacts of waste production	

Materials

- Garbage pollution text adapted from IndiaCelebrating.com¹
- Immediate to Remote worksheet
- Whiteboard, board markers

Procedures

Pre-Activities: Introducing the concept of garbage pollution.	Time Frame	Objective(s) Targeted
• The teacher starts the lesson by writing “When you throw something away, it doesn’t go away. It goes somewhere.” on the board and asking students what this makes them think. Then, they ask the students what garbage pollution/waste production is. After the students share their ideas, they read a passage on garbage pollution (See Appendix A). They discuss what they understood from the passage.	7-8 minutes	- Raising awareness on how much waste we produce
During activities: Discussing the effects of garbage pollution/waste production.	Time Frame	Objective(s) Targeted
• Then, they move on to the comprehension questions related to the passage. First, the students try to answer the questions working in pairs. Then, they discuss the answers as a whole class. • After the comprehension part is done, the teacher asks the students how much waste they think is produced every year. After the guesses, they	7-8 minutes	- Raising awareness on how much waste we produce

¹ <https://www.indiacelebrating.com/environmental-issues/garbage-pollution/>

share the answer with the students as well as the counter that shows how much trash has been produced so far in 2019.		
- Then, they move on to an activity which requires the students to rank some effects of waste production from immediate to remote (See Appendix B). The teacher explains that what is meant by <i>immediate to remote</i> is that the students should decide which effects are more direct than the others according to them. They work in pairs. - When the students are done ranking, they compare their lists with the other groups in order to see how each group ranked the effects and discuss why. - After this, they discuss the causes and effects of these impacts and fill in the table on the worksheet.	20 minutes	- Discussing the relativity of the impacts of waste production - Making cause and effect connections
Post Activities:	Time Frame	Objective(s) Targeted
The teacher asks the students which steps should be taken to reduce the effects of waste production and garbage pollution.	5 minutes	

Reflection

During this lesson, the students were not willing to provide answers to the questions asked. For example, when I asked them to answer the first question related to the reading passage (What do you think are the main reasons of garbage pollution?) it took a long time for them to provide an answer even though there was information in the reading passage regarding the question.

When section A for the immediate to remote activity was finished, I inquired what affected their decision in ranking the statement. Apparently, most students were affected by the area they live in (Kocaeli is an industrial zone heavily populated with factories). As for section B of the immediate to remote activity, the students preferred to provide explanations orally rather than writing their suggestions. However, this helped us finish this activity and the lesson in time.

Appendix A

A. Please read the passage carefully.

GARBAGE POLLUTION

Garbage has become a serious problem in the world today. According to a report published in *Nature* journal, garbage will be collected at the rate of 11 million tons per day globally by the end of this century (2100), more than three times today's rate. It suggests that the garbage-generation which was 3.5 million tons per day in 2010 will become 6 million tons per day by 2025. According to the report, urban India generates 109,589 tons of waste per day. Interestingly, the urban US produces 624,700 tons of garbage per day, which is the highest in the world, while the second largest happens to be urban China with 520,548 tons per day.

WHAT IS GARBAGE POLLUTION?

Garbage pollution arises when the waste collected in dumping sites keeps rotting, spreading odor and cause air pollution in the surrounding areas. It is often seen that waste including inorganic material such as iron cans, paper, plastic, glass pieces, or leftover food, animal bones, vegetable peel etc. are dumped in the open. Air pollution also spreads when the garbage is burnt in the open.

WHAT IS THE PROBLEM WITH GARBAGE?

In the past, garbage generally comprised only organic waste. Today, land, water and air have become polluted. Garbage is dumped in open spaces. Large factories emit a lot of smoke. Due to dust particles in the smoke, air becomes contaminated. Garbage from the households and the industrial wastes fall into the rivers. The plastic has changed the situation and a problem has arisen with it because the plastic never degrades. In India, garbage is present everywhere in some form or the other. Every year tons of waste or garbage are produced in the country, and only one percent of it is recycled. The rest either accumulates in the fields or in the streets and in the end, during the rainy season; it reaches the oceans through rivers.

There are many reasons for the production of garbage. One reason for this is growing urbanization. The more financially strong is the country or the city, the more garbage it will produce. It can also be seen by linking poverty and prosperity. Today, China and India are examples of this in the world. Both are making progress in economic development, but they are also producing piles of garbage. Other reasons for this include **the changing lifestyle**, lack of waste-management and options, and also the lack of ethics. We assume that we produce garbage and its disposal is the work of the government. Perhaps this is where we are making the biggest mistake.

B. Please answer the questions according to the passage.

- 1) What do you think are the main reasons of garbage pollution?
- 2) Give two examples of pollution from the passage.
- 3) Why do you think the garbage of India, China and the US produce are given in the text instead of other countries?
- 4) What is meant by "the changing lifestyle" in the last paragraph?
- 5) How much garbage do you think is produced each year globally?

Appendix B

A. Please try to order the below impacts of waste production from **immediate to remote**.¹

- () a. Some wastes that end up in landfills passes hazardous chemicals into the soil.
- () b. The population living nearby the polluted area or landfills is affected.
- () c. When waste is mismanaged, recyclable materials are lost.
- () d. Some chemicals and gases are emitted into the air.
- () e. Animals suffer the effects of pollution caused by improperly disposed wastes and rubbish.
- () f. Some waste cumulates in areas that they shouldn't exist.
- () g. Overflowing waste bins release odor (smell).
- () h. Cities with poor waste management are economically affected.
- () i. Some countries send their trash to other countries.
- () j. Hazardous wastes in the environment leech into the ground, and ultimately, into ground water.

B. Please provide examples to what causes the above impacts and what effects they have.

	CAUSES	EFFECTS
a.		
b.		
c.		
d.		
e.		
f.		
g.		
h.		
i.		
j.		

¹Impacts adapted from

<https://www.ecubelabs.com/overflowing-garbage-bins-5-impacts-on-health-and-environment-and-how-to-prevent/>

<https://www.skipthetip.com/10-negative-effects-of-improper-rubbish-removal/>

<https://greenlivingideas.com/2015/04/24/how-our-trash-affects-the-whole-planet/>

¹ This activity was inspired by a study carried out by J. Wang in which two groups of student were asked to rank a list of the impacts of excessive TV viewing from immediate to remote(cited in Lantolf, J. P. (Ed.). (2001). *Sociocultural Theory and Second Language Learning* (pp. 41-44). Hong Kong: Oxford University Press.)

Week 7 Lesson Plan: Lesson 3 on 12.5 Substantially Reduce Waste Generation

School/Institution: Muammer Dereli Science High School

Grade/Level: 10th Grade/B1

Duration: 40 minutes

Objectives

Content Objectives	Language Objectives
○ Talking about frequencies of activities ○ Talking about abilities	○ Adverbs of frequency ○ Can/Can't
Other Objectives (e.g., Social Justice)	
○ Describing zero waste and its importance ○ Ways of reducing waste	

Materials

- Smartboard, whiteboard, boardmarkers
- *Zero Waste Living: A Growing Movement Aims to Send Nothing to the Landfill* (by NBC Nightly News)¹

Procedures

T: Teacher Sts: Students

Pre-Activities: The teacher introduces the concept of zero waste.	Time Frame	Objective(s) Targeted
• The T greets the students and reminds them that their topic for the day is “zero waste”. The T hands out a worksheet on zero waste (See Appendix A). Then, the T asks the Sts if they know what “zero waste” means. They tell the Sts to write down what they think “zero waste” means to the relevant section on their worksheets. • The T asks the students to share their ideas with the whole class and draws a diagram of all the ideas on the board. Then, they circle the ideas that are actually related to “zero waste” and connect them with lines. The T tells the Sts that “zero waste” is a lifestyle that aims to generate zero trash.	7-8 minutes	-Introducing the term “zero waste”
During activities: The T provides authentic materials for the Sts to discuss what they can do for a zero waste life	Time Frame	Objective(s) Targeted

¹ https://www.youtube.com/watch?v=_mcTYNkA0fg

style.		
• They ask the Sts how zero waste lifestyle can help reduce the amount of trash produced each year. • The T asks the students to brainstorm and come up with ideas to reduce waste and gives an example on the board by writing "I can stop using plastic straws." Then they write "I can" right underneath her/his example so that the Sts get a clue on how to form their sentences. The students make lists of how they can reduce waste in their daily lives and write their suggestions on their worksheets. • Then, the students share their suggestions with the class so that everyone can hear each other's suggestions and add the ones they like to their own lists.	7-8 minutes	- Talking about abilities (Can/Can't) - Ways of reducing waste
• The teacher asks the students to pay attention to section C on their worksheets and try to match the terms with their definitions in order to familiarize the students with certain terms about zero waste. The students try to match the terms with their definitions. The teacher asks them to share their answers with the class. If they have difficulty matching the items, the teacher provides help. • After this, the T tells the students they will watch a news report about zero waste lifestyle. Before watching the news report, the teacher tells the Sts to pay attention to how Kathryn Kellogg reduces waste and what principles she focuses on while reducing her waste. • After watching the video, The T asks the Sts if there are any examples that they saw on the news report that isn't on their list from the B section. They add these new examples to the E section. • The T asks the Sts about the principles of zero waste lifestyle (Reduce, Reuse, and Recycle). They ask which items on their lists are related to which principle.	15 minutes	- Describing zero waste and its importance - Ways of reducing waste
Post Activities: The T promotes the Sts to take action outside the classroom. The lesson ends with a reflection session.	Time Frame	Objective(s) Targeted
• The T asks the Sts if they carry out any of the actions from the list in their daily lives. They ask them how often they do these actions and how often do they	10 minutes	- Talking about frequencies of activities

think they should do them. • The T and the Sts reflect on the topic of the day. The T asks the Sts how they found the topic and how they feel about zerowaste.		- Adverbs of frequency
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Reflection

During the instructive session on Week 5, I realized that the students were not informed about what “zero waste” means even though there was a project going on in the school about zerowaste. This is why I thought it would be suitable to have a lesson dedicated to zero waste. Just like in the previous lesson, the students mostly preferred to provide answers and explanations to the activities orally.

To my disappointment, I had to carry out this lesson with about half of the class. Most students were absent due to extracurricular activities and other reasons. This was unfortunate as I conducted a survey concerning the lessons we had (See Appendix B). Since half of the class was missing, I am not exactly sure whether the survey results truly represents the whole class.

BIBLIOGRAHY (For the definitions of terms):

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<https://www.urbandictionary.com/define.php?term=recycle>

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QR code for *Zero Waste Living: A Growing Movement Aims to Send Nothing to the Landfill* (by NBC Nightly News):



Appendix A

A. What do you think “zero waste” means?

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B. What can you do to reduce your waste?

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C. Please match the terms with their explanations.

a. Zero Waste	1. generally disposable food containers commonly used for carryout meals or drinks.
b. landfill	2. to take and break down what's already been used and then make it into something else that appears brand new.
c. buying in bulk	3. making something smaller in size or amount, or less in degree
d. togo containers	4. an area of land where large amounts of waste material are buried under the earth.
e. Reduce	5. generating little or no waste. The aim is to send nothing to a landfill by reducing our needs, reusing as much as possible, sending little to be recycled, and composting.
f. Reuse	6. to use again especially in a different way or after reclaiming or reprocessing
g. Recycle	7. purchasing large quantities of a particular product or products, typically at a discount

D. What does Kathryn Kellogg do to reduce her waste? Please list three of the things she does.

- 1.
- 2.
- 3.

END OF PROJECT SURVEY

Nickname:

Please indicate your agreement or disagreement with the statements below according to how you feel about your environmental education classes.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. I enjoyed the environmental education classes.						
2. I learned a lot about the environment and sustainability during these classes.						
3. I learned a lot about how my daily actions and my lifestyle affect the environment.						
4. I learned a lot about how my daily actions and my lifestyle affect animals and other people.						
5. I am willing to change my actions to have a more sustainable lifestyle.						
6. I have made some changes to my actions in my daily life to have a more sustainable lifestyle.						
7. I am willing to share what I learned in these classes with my friends and/or my family.						
8. I have shared what I learned in these classes with my friends and/or my family.						
9. I would like to become involved in projects/organizations about protecting the environment in the future.						
10. I have become involved in projects/organizations about protecting the environment.						
11. I would like to carry out a project at my school.						
12. I have a project idea which can be carried out at my school and I would like to share this idea with the school authority.						
13. These classes got me to consider a career related to the environment and/ protecting/restoring it.						

Appendix B

14. I would like to have more lessons on the environment and sustainability in our English classes.						
15. These classes got me to research on environmental issues outside the classroom.						

16. What was interesting to you that you have learned in the environmental education classes? What was memorable for you? What did you like the most about these lessons?

17. What else would you have liked to learn in these classes?

18. Would you like to share any other ideas/thoughts/feelings?