The Icelandic Seal Center

E10272317

CLIMATE CHALLENGE
Adventure

Game Time for a Green Future:
Make Your Move Against Climate Change!
2024-1-IS01-KA220-SCH-000243341

Activity Title
Make your own environmental and sustainability certification – Move your home towards a more sustainable way of living

Grade Level:	Secondary School (Ages 12–15)
Duration:	2 Lesson Hours (2 x 40 min)
Subject Areas:	Environmental Science, Sustainable Consumption, Energy Awareness, Citizenship Education
Learning Domain:	Climate Action, Circular Economy, Sustainable Lifestyles
Key Competences:	Collaboration, Green Competences, Problem-Solving, Creativity, Critical Thinking

Make your own environmental and sustainability certification
Move your home towards a more sustainable way of living

Authors: Örvar B. Eiríksson and Erla Björgvinsdóttir

Learning Objectives:

- Students will learn easy ways to be more sustainable in their daily lives.
- Students will learn to think critically about the environmental impact of their home.
- Students get a checklist to help them figure out what is done in an environmentally good way and where there is room for improvement.
- Student design an checklist system to encourage members of their household to be more "Green".

Materials & Resources

- Excel sheet with a checklist
- Computer/Phone/Pad to view and adjust the checklist
- Printer to print your custom-made checklist
- Apps or paper to design logo

Expected Outcomes

- Increased awareness of sustainability in a local context.
- Student getting the capacity for green action at their home
- Improved teamwork and communication.
- Giving the students tools and knowledge to inspire their household to be more sustainable.

Assessment & Evaluation

- Both pre- and post- evaluation
- Teacher evaluation of creativity, participation, and sustainability ideas
- Observation of equal participation
- How much effort the student puts into checklist and logo design

Introduction

The purpose of this activity is to give students the tools and capacity to make their home more sustainable. By doing so the students will be able to influence other members of their household and increase their consciousness about action against climate change.

Session Plan

Part 1 – Explanation (10 minutes)

- The teacher goes over the 5 main categories of the certification and explains why they are important:
    1. **Energy**
    2. **Water**
    3. **Waste**
    4. **Recycle/Upcycle**
    5. **Consumption**

Part 2 – The purpose of certifications (10 minutes)

- The teacher talks about different types of environmental and sustainability certifications. What is the purpose of them and how they change the thought process of individuals that have the ambition to get and maintain the certification.

Part 3 – Drafting a checklist for the certification (15 minutes)

- The teacher introduces a draft of a checklist for the certification in Excel. The items in the checklist are explained and discussed.
- Students are divided into groups of 4-5 and they discuss the checklist and each groups adds 1-2 items in each category of the checklist.
- Each group tells the rest of the students what items they have added, and the teacher makes a big checklist will all items.

Part 4 – Making your own checklist (20 minutes)

- All the students make their own checklist individually in a computer or pad. The guidelines for the list are the following:
    1. All 5 categories must be included.
    2. There must be at least 4 items in each category.
    3. The list must have a rating system to monitor performance in each item.
    4. There must be a plan who is responsible for maintaining and reviewing the list and how often it should be done.

Part 5 – Making you own certification logo (15 minutes)

- All certifications must have a logo, and each student will design the logo for their certification.
- The logo can be done in computer or by hand and is added to the top of the checklist.

Part 6 – Finalizing the checklist (10 min)

- When both the checklist and the logo have been finished, they are made ready for printing.
- After the activity has been completed the teacher will print each checklist in A4 and seal in plastic to ensure durability and make it reusable.
- The printed checklist is then returned to each student.

Make your own environmental and sustainability certification – Pre- and Post-evaluation

Pre-Test Questionnaire

Objective: To assess students' knowledge about sustainability connected to their own household.

Total: 5 points (1 point per correct answer).

1. **What is a good way reduce food waste?**
   a) Stop eating food
   b) Weight all food waste and make plans to reduce it
   c) Only eat at restaurants
   d) Eat only meat

2. **Why is it bad if a water tap is leaking in your home?**
   a) It makes the bathroom wet
   b) It makes the water warmer
   c) Your shower will be colder
   d) It is an unnecessary waste of water

3. **What is good to have in mind when buying a new electrical appliance?**
   a) That it is energy efficient
   b) That it looks cool
   c) It is best to have it red
   d) It is better to buy very old ones

4. **What can be a good idea to do when you need to buy some clothes?**
   a) Don´t buy socks
   b) Always buy clothes online
   c) Start by looking at second hand options.
   d) Try to buy no colour clothes

5. **When reducing energy consumption, it could be good to…**
   a) always have the lights on because it takes much energy to turn them on
   b) use old light bulbs because the us less energy
   c) have the refrigerator open ca. one hour every day because it uses less energy
   d) use only LED light bulbs.

Post-Test Questionnaire

Objective: To evaluate what students have learned after making their certification.

Total: 5 points (1 point per correct answer).

1. **What are the categories of the certification?**
   a) Hot water, Cold water, Trees and Plastic
   b) Energy, Water, Waste, Recycle/Upcycle and Certified products
   c) Energy, Water, Waste, Environmental and sustainability
   d) LED, Second hand, Waste management, Water Tabs and Energy

2. **How can a certification help people to be more "Green"?**
   a) A good list always helps
   b) It improves their knowledge of Excel
   c) It makes them think more about the environment and how to do better
   d) It makes it less likely that you go to jail for being "UnGreen"

3. **What do you need to check regarding door and windows?**
   a) That they have dark glass so others can´t see what is inside
   b) That wind isn´t blowing inside and making the house colder
   c) That they always have a nice view
   d) That you can open them really well to get fresh air inside

4. **Why is it important to monitor energy consumption?**
   a) To be sure that you are being charge correctly by the bank
   b) It improves your math abilities
   c) Because you might get fines if you use too much energy
   d) To see if your consumption is increasing and to be able to set goals for reduction

5. **Why is it important to monitor the temperature inside your home?**
   a) Because if the heat is higher than needed your are wasting energy/hot water
   b) Because it needs to be very warm so you don´t get sick
   c) Because it is better for the furniture to have the temperature under 19°C
   d) Because you need to turn up the ovens if an open window is making it cold inside

Rubric – Make your own environmental and sustainability certification

This rubric is to measure the student performance.
When measuring it is important to keep in mind to measure the effort the student puts into each part. For example, if a student put good effort into the logo design but the end-product is not impressive the effort is what counts. Same if the end-product is impressive but little effort was put into it, the rating should reflect that.

	Excellent	Good	Fair	Needs improvemen	Students score
	3	2	1	0	
Pre test	9 - 10 correct	6 - 8 correct	4 - 5 correct	0 - 3 correct	
Post test	9 - 10 correct	6 - 8 correct	4 - 5 correct	0 - 3 correct	
Participation and teamwork					
Ideas for new items for checklist					
Final checklist design					
Logo design					
				Total score	
Total points (max 18)					
Excellent	15 - 18				
Good	10 - 14				
Fair	6 - 9				
Needs improvement	0 - 5				