

*"In nature there are no rewards or punishments, only consequences."
(RG Inge-soll, 1833 – 1899)*

Introduction.

The problems of environmental devastation and the need to protect it are an important problem of the modern world. The mistakes made towards nature by the generation of today's seniors may affect the fate of future generations in the future. The young generation is currently developing a sense of responsibility for the environment in which they live. This is a good action because young people are "fertile ground" for shaping positive attitudes. In the future, they will decide on many issues and they should be the ones who should be paid attention to many mistakes made in today's world. Now that we have realized how far humans have gone in interfering with the environment and what the risks are, we should not only look at the actions of young people, but together with them we should actively engage in correcting the mistakes made and in protecting the environment. Man is an integral part of the environment and therefore should cultivate and care for it as the highest good. We should live in a clean and healthy environment, and by developing a sense of responsibility for the surrounding environment we can achieve this. This is probably the last moment, so we should spread ecological problems, teach responsible behavior, indicate positive and negative behaviors of people in contact with nature. Human actions will be appropriate only if they have appropriate ecological awareness, and that is why education in this area is so important. This program is intended to make seniors aware of the essence and importance of these problems.

Program goals:

- raising and improving the level of ecological awareness of seniors, including teaching the basics of sustainable management of the natural environment,
- promoting the economical use of natural environment goods,
- disseminating knowledge about an ecological lifestyle, including introducing environmental protection techniques and technologies into seniors' everyday life,
- shaping habits of ecological culture and creating moral attitudes,

- implementing holistic thinking skills, involving understanding the needs of humans and nature,
- developing the ideas of ecological international movements,
- social activation,
- building civil society.

Implementation method:

We achieved these goals through the issues proposed below.

We discussed them and then conducted workshops to consolidate the knowledge and show how to implement it in everyday life. We did this as part of a series of 20-hour ecological education classes for a group of willing seniors, numbering up to 20 and 100 people. Implemented respectively at the University of the Third Age in Woźniki in Poland and in Asociația ACADEMICA PROIECT in Braila, Romania. This cycle will be repeated annually in the future for other groups of interested seniors.

Eco kitchen

Providing information about ecology in the kitchen. Below is an example of the scope of knowledge that seniors are to acquire after completing this topic. You can expand the topics according to your knowledge.

1. Filling the fridge and restocking supplies on a regular basis.
2. Marking the shelf in the refrigerator where the food with priority to be eaten is located.
3. The fridge is set to 6 degrees - not, for example, 2.
4. Faucet with built-in filter.
5. Drinking tap water.
6. Using water from washing vegetables and fruits to water plants.
7. The tap in the kitchen is set to cold water. If we need warm water, we pour this initial cold stream into a watering can and use it to water the flowers,
8. Not throwing additional garbage into the sewage system (sink, toilet), using a strainer in the kitchen sink or installing waste grinders,
9. Diluting dishwashing liquid with water.
10. Reusable food boxes.
11. Avoid wasting food - you can use leftovers to make various casseroles, soups, creams and spreads.
12. Cooking for two days plus an extra portion to freeze.
13. Using ziplock bags to store frozen food (used many times).

14. Freezing food, but also freezing lemon juice and herbs in ice cubes.
15. Loading the dishwasher fully.
16. Using eco mode in your dishwasher.
17. Washing dishes in a bowl.
18. Cooking with a lid to save electricity and shorten the time.
19. Baking several dishes in the oven at once.
20. Cooking one-pot meals.
21. Using ice cream containers and jars to store dry food.
22. Using glass juice bottles to collect water for watering flowers.
23. Using a hemp cloth or sea borage sponge instead of dishwashing sponges.
24. Grinding dry rolls into breadcrumbs.
25. Brewing loose leaf tea in a linen bag.
26. Making homemade milk, e.g. almond milk.
27. Using kitchen cloths instead of disposable towels.
28. Using metal straws or washing plastic ones.
29. Using a thermal mug and a glass bottle.
30. Lining kitchen cabinets and trash cans with old newspapers.
31. Avoiding buying unnecessary gadgets for the kitchen.
32. Using "shop" bags as garbage bags.
33. Eco cleaning, mainly using vinegar, gray soap and essential oils.
34. Cleaning with a microfiber cloth and water.

WORKSHOPS

We offer culinary workshops during which seniors will prepare a dish from leftovers in the fridge, a one-pot dish and red beetroot preserves for the winter.

1. *Workshop participants bring leftovers of dishes and food products collected in their home refrigerators. They exchange experiences on their development. They use, for example, leaves, peels and seeds of vegetables to prepare pesto, broths and sauces. They create their own*

*dishes such as: -salads -soups-frittatas-casseroles
-cocktails.*



Here are some recipes:

Leftover dishes

Macaroni Casserole With Sausage

Ingredients:

- 20 dag of tube pasta,
- 20 dag of thin sausage,
- 15 dag of yellow cheese,
- a glass of tomato sauce,
- butter and breadcrumbs into the form,
- parsley,
- salt.

Preparation:

1. Cook the pasta in boiling water according to the instructions on the package.
2. Cut the sausage into slices and fry in olive oil.
3. Grate the yellow cheese on a coarse grater.
4. Mix the pasta, sausage, half of the cheese and tomato sauce in a bowl.
5. Grease the baking tin with butter and sprinkle with breadcrumbs.
6. Pour the pasta mixture into the form and sprinkle with the remaining cheese.
7. Place the pasta casserole in the oven preheated to 180 degrees C and bake for 30 minutes.
8. Before serving, sprinkle with greens.

Chicken casserole

Ingredients:

- 20 dag of pasta,
- a pinch of turmeric,
- chicken breast, cut into cubes,
- zucchini,
- red and green peppers,
- 15 dag of mushrooms,
- 4 large eggs,
- 3 tablespoons of grated yellow cheese,
- a teaspoon of Provençal herbs,
- sweet pepper,
- hot pepper,
- nutmeg,
- butter,
- oil,
- salt,
- pepper.

Preparation:

1. Cook the pasta in a large amount of salted water with turmeric.
2. Drain on a sieve. Sprinkle the chicken with salt, pepper, sweet and hot pepper. Fry in 5 tablespoons of oil.

3. Heat 4 tablespoons of oil in a large frying pan, fry the sliced zucchini and peppers, then transfer to a plate.
4. Pour another 4 tablespoons of oil into the pan and fry the cut into strips fresh mushrooms.
5. Combine pasta with vegetables and mushrooms. Beat the eggs, add the cheese, season with salt, pepper, herbs and nutmeg.
6. Grease the mold with butter, add the mixed mixture and bake for 50 minutes in an oven preheated to 190 degrees C until it sets.

Macaroni Casserole minced meat

Ingredients:

- 35 dag of penne pasta,
- 30 dag of minced meat, there may be leftovers of cooked meat, e.g. from broth,
- can of tomatoes,
- 2 cloves of garlic,
- 10 dag of mozzarella cheese,
- 3 tablespoons of oil,
- salt,
- pepper,
- basil.

Preparation:

1. Cook the pasta until semi-hard in salted water. Strain.
2. Heat 2 tablespoons of oil in a pan and fry the meat.
3. Add tomatoes, salt, pepper, basil and garlic. Stir everything together.
4. Grease an ovenproof dish with oil, place the pasta, pour the meat sauce over it and sprinkle with mozzarella. Bake the pasta casserole for 25 minutes at 200 degrees C.

Vegetable croquettes with broth

Ingredients:

- cooked vegetables: carrots, celery, parsley - use those from the broth
- cooked potatoes - can be from the previous day
- spices
- egg
- breadcrumbs, oil
- wheat flour

Preparation:

1. Grind or grate all vegetables
2. Add the egg, spices and flour to the vegetables to form an elastic mass
3. Form cutlets, roll in breadcrumbs and fry in oil until golden brown

Cutlets made of stale bread

Ingredients:

- 200 g of stale bread
- 300 ml of water
- 100 g of onion
- 1 egg
- a mixture of herbs - dried or fresh, e.g. dill or parsley
- 80 g of yellow cheese
- salt pepper
- frying oil

Preparation:

1. Divide the bread into pieces and soak in water, drain after 10 minutes.
2. Grate the onion, add herbs and mix with the soaked bread.
3. Put the bread with the additions into a bowl, add the egg, cheese, salt and pepper, and blend everything.

4. Form small cutlets from the resulting mass, then fry them in oil for a few minutes on each side until golden brown.
5. After frying, transfer the cutlets to a paper towel to remove excess fat. Serve with your favorite dip.

One pot dish

Bulgarian groats with peppers, tomatoes and chicken - a recipe for a one-pot dinner

Ingredients:

- 300 g bulgur groats,
- 1 red pepper,
- 1 yellow pepper,
- 2-3 tomatoes,
- 2 chicken breast fillets,
- 1 onion,
- 1 clove of garlic,
- 1 teaspoon of thyme,
- dill,
- frying oil,
- salt and pepper.

Preparation:

1. Cook the bulgur according to the instructions on the package.
2. Heat the oil in a pan and add the diced onion.
3. After 2 minutes, add the chicken cut into cubes of about 2 by 2 cm and the garlic pressed through a press.
4. Remove the chicken from the pan and add the very finely diced peppers. Fry until slightly softened.
5. Add the chicken and diced tomatoes again.
6. Add previously cooked groats, season with thyme, salt and pepper.
7. Serve sprinkled with fresh dill.

Eco bathroom

Providing information about ecology in the bathroom. Below is an example of the scope of knowledge that seniors are to acquire after completing this topic. You can expand the topics according to your knowledge.

1. Taking a shower instead of a bath. The use of an ecological shower that automatically closes the water flow after four minutes,
2. Turning off the tap when brushing your teeth. Use of electronic batteries that turn off after 6 seconds,
3. Making your own cosmetics,
4. Using a bamboo toothbrush and homemade toothpaste,
5. Using home-made conditioners based on water, vinegar and oil,
6. Washing your hair with flour, soap nuts or clay,
7. Using the right amount of cosmetics,
8. Creating cleaning products based on vinegar, soda, lemon.
9. Using crystal (alum) instead of antiperspirant.
10. Using a razor with a traditional blade.
11. Using washing balls instead of washing powder.
12. Using reusable diapers, using reusable washcloths, breast pads and cosmetic pads.
13. Cutting cosmetics packaging, e.g. fluids, and using everything to the last "drop".
14. Purchase of an energy- and water-saving washing machine.
15. Not using a laundry dryer. "Line drying".
16. Using warm water after hand washing to clean floors.
17. Cosmetics in reusable glass packaging.
18. Using recycled gray toilet paper.
19. Leaving the door open while drying your hair or taking a shower warms up the hall.
20. Using a menstrual cup.
21. Turning old clothes into cloths.

WORKSHOPS

1. *Making peeling soap based on gray soap and worsted wool.*
To make peeling soap, you will need a piece of gray soap, a bowl of water and multi-colored worsted wool. We soap the soap in our hands and wrap it in wet wool, soaping constantly. Until will be firmly "glued" to the soap.

Let's dry it. We use it while bathing. After use, dry it again, e.g. put it on a wire soap dish.



2. Eco cosmetics – making liquid soap

Participants make liquid soap from the collected and crushed soap remnants.

Soap recipe:

one cup of finely chopped soap

three glasses of water

4 tablespoons of vegetable glycerin

half a teaspoon of grapefruit seed extractor vitamin C, you can add 10 drops of essential oil before pouring into bottles

Eco shopping

Providing information about ecology when shopping. Below is an example of the scope of knowledge that seniors are to acquire after completing this topic. You can expand the topics according to your knowledge.

1. Buying food from local farmers. We help save the world from the catastrophe of global warming.
2. Using reusable shopping bags or a wicker basket. For larger purchases, a foldable basket with a handle kept in the trunk of the car.
3. Taking your own jars, small packages, egg trays and vegetable bags when shopping.
4. Making and sticking to an accurate shopping list.
5. Buying second-hand things, including books, toys, clothes, shoes.

6. Using things passed down from generation to generation.
7. Buying better quality things so they last longer.
8. Avoiding meat, especially beef.
9. Picking up clothes without hangers from the laundry.
10. Buying products by weight.
11. Buying larger packages,
12. Not buying water in plastic bottles,
13. Shopping online.
14. Paying attention to labels and choosing organic and Fairtrade products.

WORKSHOPS

Sewing shopping bags and decorating them yourself.

Workshop participants sew shopping bags from leftover materials or unused clothing. They decorate the bags themselves, e.g. by embroidering selected patterns on them or painting them with ecological paints.

ECO AT HOME every day

Providing information about ecology generally used at home. Below is an example of the scope of knowledge that seniors are to acquire after completing this topic. You can expand the topics according to your knowledge.

PAPER

1. E-invoices for water, energy, telephone, etc.
2. Scanning instead of printing.
3. Electronic tickets.
4. Leaflets and catalogs only online.
5. Reading newspapers and magazines in electronic version.
6. Double-sided printing.
7. Useless sheets of paper given to children to draw on.
8. Giving up projects on paper (e.g. at work as a graphic designer) in favor of a tablet.
9. Using libraries and e-books.
10. Making book covers from old calendars.

11. Recycling paper for wrapping gifts and decorative bags.
12. using pieces of cardboard from old packaging as bookmarks.
13. Using gray paper to wrap gifts (decorated with children's drawings).
14. Making gifts yourself.
15. Envelopes made of old cards.
16. Picture frames

WORKSHOPS

1. Making your own photo frames to stand and hang



ELECTRONICS

1. Energy-saving LED fluorescent lamps.
2. Turning off unnecessary light.
3. Specially programmed plugs that cut off the power supply to equipment at night and while we are at work.
4. Eco drive.
5. Maintaining the optimal temperature at home: 20-21 degrees, and 19 at night. An additional blanket instead of overheating the room.
6. No TV.

7. Buying energy-saving equipment.
8. Not using stand by mode.
9. Rechargeable batteries instead of batteries.
10. Returning used electronics to special collection points.
11. Failure to ventilate rooms with radiators turned on.
12. Using the furnace controller (turning it on just before returning home).
13. Fixing broken equipment rather than buying new one.
14. Removing the charger from the socket after the phone is charged.

WORKSHOPS

A meeting of seniors during which there will be a discussion on how we can implement at least one eco-measure in our home at no cost.



DIFFERENT

Providing information about ecology in various life situations not covered earlier. Below is an example of the scope of knowledge that seniors are to acquire after completing this topic. You can expand the topics according to your knowledge.

1. Walking, cycling, public transport instead of driving. Using ecological means of transport. Leaving the smallest carbon footprint possible,
2. Car pooling
3. Returning unused medicines to special points.
4. A visit to the doctor with a list of medications you already have.

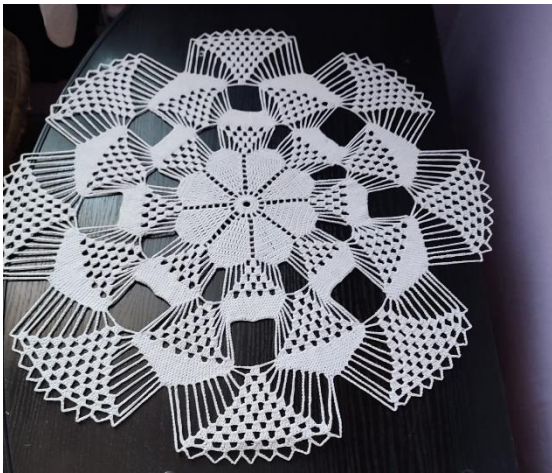
5. Waste segregation.
6. Burning in the stove only in permitted ways.
7. Giving away or exchanging unnecessary things instead of throwing them away.
8. Recycling small items (shoe boxes for storage, plastic cups for holding children's crayons, wrapping old binders, a tin as a flower pot, etc.)
9. Using used socks as shoe cleaners.
10. No carpets.
11. Using torn tights to wipe dust or as pillow stuffing.
12. Using a broom instead of a vacuum cleaner.
13. Sewing your own clothes, altering old ones, handicrafts.
14. Using organic cat litter.
15. Transforming old furniture.
16. Repairing electronic equipment instead of replacing it with a new one,
17. Using natural candles.
18. Not ironing bed linen or towels.
19. Donating old blankets and bedding to an animal shelter.
20. Removal and disposal of products containing asbestos.
21. Handmade jewelry.

WORKSHOPS

1. *Needlework. Preparing furniture decorations, napkins, window hangings, door wreaths, toys and other handmade things.*









2. Handmade jewelry.



3. Practical learning of waste segregation.

-Seniors bring empty packages. Practical exercises using colorful bags for segregating garbage.

- Solve quizzes about garbage segregation on [Quizziz.com](https://www.quizziz.com/)

Promoting organic food and healthy eating principles

Providing information on food ecology. Below is an example of the scope of knowledge that seniors are to acquire after completing this topic. You can expand the topics according to your knowledge.

1. Running your own eco-garden or plot.
2. Buying at local markets and from local suppliers.
3. Buying seasonal vegetables and fruits.
4. Having your own composter.
5. Rainwater collection. "Water footprint" - using videos available on the Internet regarding examples of water use in food and industrial production, the problem of access to drinking water in the world and the problem of sewage.
6. Preparing your own preserves.
7. Reducing the consumption of meat and dairy products in favor of vegetables and fruit to prevent the climate crisis from getting worse.
8. Managing invasive species.
9. Making and hanging an insect hotel.
10. Learning the principles of healthy eating and applying them in everyday life.

WORKSHOPS

1. Making a hotel for insects.

An insect house is an imitation of a natural insect habitat, a structure consisting of various natural and recycled materials, where insects can safely nest and survive the winter by hibernating inside the structure..

Hollow bamboo poles are best for bees, while beetles are more likely to settle on a wooden trunk with holes. Ladybugs and smaller insects will certainly choose straw bundles or pine twigs, and lacewings will choose bunches of dried grass or multi-layer cardboard. You can also use cones to build a house.

The hotel should be as diverse as possible, then we will be sure that many different populations of insects will settle there, thus achieving greater biodiversity in the garden.



2. Making healthy preserves.



Working methods used during program implementation:

Word-based methods:

- talk,
- story,
- discussion.

Methods based on practical activity:

- experience,
- practical workshops,

Methods based on observation and measurement:

- film screening,
- measurement of things, phenomena.

5. Explanatory and demonstrative methods:

- show,
 - lecture,
6. Problem methods:
- trip,
 - observation.

Effects

After completing the program:

- Seniors understand the essence and importance of the problem.
- They know that their actions may contribute to even greater devastation of the environment or to its improvement.
- They will feel responsible and will react to any manifestations of inappropriate behavior of others towards nature.
- They will take care of their immediate surroundings.

Acquired skills:

- senior understands the need to protect the environment,
- can sort household waste and encourage others to collect recyclables,
- understands the need to save water, energy and raw materials,
- promotes a healthy lifestyle,
- knows what Zero Waste means and applies it in everyday life.

Program evaluation.

1. Diagnosis of attitudes based on the observation of seniors' behavior in a specific joint activity or situation created during a trip (simulating a situation).
2. Survey addressed to seniors "What will you do if.....", "How will you behave when.....", "What do you think about.....?"
3. SWOT analysis - examination of the program's strengths and weaknesses.
4. Conducting an ecological knowledge competition.

Thanks to this action, we also managed to:

- Encourage older people to deepen their ecological knowledge and combat non-ecological habits,
- Help you learn about the most interesting ecological places in the region through lectures,

- Develop people's respect for the environment and the world around us.
- Pawaken seniors to take action to maintain ecological principles

Literature:

When preparing for an ecological project and developing an ecological program for seniors, we had to acquire knowledge on this subject ourselves. We used, among others, the following sources.

Websites:

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This program was prepared during four mobilities carried out in accordance with the project "Ecological education for seniors" in action KA210-ADU - Small-scale partnerships in the adult education sector in 2023. It was prepared by members of the Management Board of both partner organizations. The photos posted come from the UTW website in Woźniki, AP z Braila Facebook and WhatsApp of both organizations. All class members consented to the publication of the image.