

Proposal: Waste Awareness Action Week

Pilot project for Ionian Schools

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Supported by the Ionian Environment Foundation



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Overview

Waste Awareness Action Week for Ionian Schools- Pilot project

- The five-day programme entitled Waste Awareness Action Week (WAAW) is a community-based approach designed to promote cross-generational awareness, understanding and action towards the critical issues associated with excessive waste disposal in the Ionian islands.
- Over the course of 5 sessions (2 hrs each), school pupils will examine the causes and consequences of unsustainable waste management on their island and, critically, they will explore the most appropriate solutions to these issues.
- The programme will aim to culminate in *action for change* with waste efficient schools, waste efficient homes and a more effective use of existing waste management facilities. Support will come from teaching staff within the school following a one-week run of the programme by IEF programme leader.
- The programme is a pilot to be first implemented in Paxos and then reviewed and improved. If all goes well, there will come a plan to spread it across the Ionian Islands, by training teachers and others to hold it in schools.

SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5
- Introducing the ISSUES of excessive waste and understanding key environmental terms - Discussion - Lessons - Research	- TRIP to Landfill or images via drone – AWE AND WONDER! - Data collection Alternatives to landfill? - Discuss issues of incineration	The PROBLEMS: - Discuss impacts (env/soc/econ)of landfill and observations from trip - Data presentation - Graphical skills	The SOLUTIONS: - Discuss and present ways to reduce waste consumption through individual and collective action	- Plan and prepare presentations to community Causes, consequences and solutions... - Nominate CHAMPIONS to carry positive actions forward into the future

Table 1. WAAW course overview.

The programme will end with a closing ceremony where children will present the outcomes of their work to their community.

1. Introduction

My name is Victoria Turner and I have been a Senior School Geography Teacher and Head of Geography at Norwich School in the UK for the last 10 years. I have witnessed the concerns and issues revolving around waste management in school and within the wider community and have learnt much from the students who themselves are impressively determined to change the bad habits and poor practice of the previous generation. I have a home in Paxos, am fluent in Greek and care deeply about sustainable tourism, development and waste management on the islands of the Ionian. I am taking a sabbatical year to explore these areas of concern in Greece and to promote action for change. The Ionian Environment Foundation (IEF) is the perfect conduit for me to utilize my skills and experience effectively in schools. Through the WAAW programme, children will become the motivators and leaders in reducing, re-using and recycling waste within their community: at school, home and overtime in the workplace. Starting in the schools is critical, because only then will the islands' populations mature into a people who turn sustainable waste management into an everyday habitual practice.

2. Needs and problems

The islands of the Ionian share some common problems:

- a severe *lack of comprehensive waste management* at both local and national levels
- an absence of effective recycling or funding for waste management
- lack of space for landfill
- a reliance on tourism, as their primary source of income, which fuels the problem of waste disposal in the tourist season

In addition, many islanders have limited knowledge/concern about the impact of waste and landfill on the environment, or how to address these issues effectively. These problems have escalated in the last 30 years as tourism has increased and the associated service sector has boomed. With this, disposable incomes have grown and hence the demand for more packaged products and foods, cars, labour saving devices and other finite goods, which are all generating excessive waste. The visual evidence of this is seen all over the islands of the Ionian: overflowing and burning landfill; fly tipping of everyday domestic waste; white goods and cars on the sides of the road or thrown into valleys.

One of the most sustainable and practical solutions in the current climate is to promote understanding and awareness amongst local communities on (i) the impact of this waste

on their environment (ii) how to *reduce/manage* the waste they generate (iii) how to ensure that any waste management strategies in place are effectively utilized.

To date, schools have made efforts to raise awareness about such issues, but the resources, restrictions and lack of time during the school day makes outcomes inconsistent, incomplete and weak.

3. Aims and Objectives

The lessons learnt through the WAAW will disseminate from the pupils into the wider community with the overall aims of seeing a lasting impacts in terms of a significant reduction in non-recyclable waste and ensuring that when an effective waste management/recycling strategy is implemented, local communities understand why and how to use it.

Aim 1:

- By visiting the landfill sites pupils will gain a *visual alert* to the scale of the problem, which will inspire the subsequent action.
- Pupils will gain and demonstrate skills in GIS, data collection and mapping in order to understand the scale of the landfill associated issues

Aim 2:

- Encourage *cross-generational discussions* between the old and young generations on small islands who have experienced life both before and during the proliferation of plastic waste.
- This will help re-establish past, and create new, appropriate solutions to waste within each island's unique context

Aim 3:

- The program will culminate with a pupil led presentation to the local community examining the causes, issues and solutions to excessive waste disposal.
- This will ensure good habits are disseminated and justified to a wider audience of all ages, including business owners/restaurateurs

Aim 4:

- Schools gain publicity for their efforts in reducing plastic within the school and the wider community through social media, 'Plastic Free Paxos' or similar, as well as local and national newspapers
- This will motivate the pupils and wider community to enforce and maintain their positive approach to waste management

Aim 5:

- The action week can be repeated/modified throughout the school year and within all year groups by the teachers
- This will ensure a long term approach with a lasting impact that becomes embedded in the curriculum

4. Scope of work – WAAW timetable

The initial sessions will take place during each school's allocated 'flexible hours' to ensure no disruption to existing lessons and school timetable.
All notes from discussions and group work will be recorded in student workbooks.

Day 1: 'Introducing the issues and understanding the terms'

Introduction – classroom based lesson on 'what types of waste are there and what do we do with it?'

- ❖ Types of waste: biodegradable/compostable versus non biodegradable – what can/can't be recycled?
Activity sheets to sort/identify/define/categorise different waste items
- ❖ Discussion and spider diagram/mind mapping to examine how these different types of waste are disposed.
- ❖ Pair work to consider the *environmental concerns associated with landfill*:
 - Eyesore
 - Inability to decompose
 - Toxicity of waste bi-products
 - Release of methane and toxic atmospheric gases
 - Impact on wildlife and habitats
 - Impact of leaching toxins into groundwater and soil
 - Fires and release of carcinogens – inhaled by people and animals
 - Associated with lung and heart diseases
 - Symptoms for people living next to the landfills also include sleepiness, headaches and fatigue
 - Risk of mass movement and landslide
 - Impact on tourism?
- ❖ Discuss in groups – Why is *more* waste going to landfill?
 - How/why has our consumption changed since our grandparent's generation? (Encourage conversations between parents/grandparents and pupils throughout the week at home)
 - How has the shift from an agricultural based economy (olives) to a service industry (tourism) affected consumption and waste?
- ❖ IT Research/quiz how long do the following waste products take to decompose:
 - Plastic bottle –large and small!
 - Nappy
 - Plastic coffee cup
 - Straw
 - Plastic bag
 - Battery
 - Cigarette Butt
 - Mobile phone

Other electronic devices
Beer bottle
Etc.

- ❖ Homework – have a conversation with your grandparents about waste management. How is domestic waste different today compared to when they were children? How did they dispose/manage their waste? What was their relationship with plastics?

Day 2: 'TRIP to Landfill – AWE AND WONDER'

- ❖ Classroom. Recap previous lesson.
- ❖ Share stories from grandparents about their experiences with waste/plastic in the past? Discussion and notes.
- ❖ Drive pupils (minibus) to local landfill site – photos, field sketches, environmental quality survey, soil samples, mapping/measuring size etc – all work to be completed in workbooks.
- ❖ Return to school to discuss findings and pupil reactions

Day 3: 'Presenting The Problems'

- ❖ Data presentation (explore graphical skills depending on age group)
 - Annotated field sketches/photos
 - Pie charts illustrating EQ/leachates with distance from landfill
- ❖ Create! Group work
 - Ideas:
 - Posters with annotated photos, facts and figures about issues associated with waste
 - Prepare PPT presentations (dependent on IT provision) with pupil speakers explaining the serious issues of landfill
 - Graphical displays – pie charts/pictograms etc to illustrate % different waste products in landfill
- ❖ Complete presentations of '**The Problems**'

Day 4: 'The solutions'

- ❖ **Solutions : Discussion groups:**
 - REDUCE/RE-USE/RECYCLE
 - What daily products can we do without?
 - How can we stop these products from being made? Stop demanding them!
- ❖ Group work to design a poster/logos for:
 - Say no to plastic straws
 - Say no to plastic bottles
 - Carry your own shopping bags

- Say no to plastic coffee cups – take your own reusable
 - Separate your waste carefully
 - Compost food waste or give to a neighbor with animals
 - Fight for well organized recycling units
 - Create a plastic free school??!!
 - THINK BEFORE YOU THROW: CAN IT BE RE-USED/RECYCLED?
 - ETC
- ❖ In pairs create a plan for how can we take action in our school?
- ❖ Share ideas and vote for the best plan

Day 5: Presentations and wrap up

- ❖ Create/plan a school presentation for parents and grandparents (a date to be confirmed and advertised) based on the week's activities
- Clarify and explain to the audience – ‘the problems and the solutions’
 - Focus on ‘what can we all do to reduce the waste that goes to landfill?’
 - Positive spin on ability to make a difference
 - Discuss most effective ways to present – PPT images/Drama/mock interviews/speakers etc.
- ❖ Nominate/award ‘ Champions ’ – selected pupils responsible for encouraging ongoing activities and awareness promotion. These will be recorded and monitored after 6 months.

5. Future tasks to be promoted/organized by pupil ‘champions’

AIM: “Can our school be a leading sustainable waste management model to the whole island”?

- Establish an environmental committee within the school
- Plastic free day?
- Plastic free week?
- Plastic free school?
- Separate bins in schools monitored by pupils
- Filtered water fountains for pupils or water stations
- Design re-usable school water flasks
- Plastic cap collectors
- Clothes swap/exchange day
- Compost heap at school?
- Zero waste school?
- Long-term: Communication between champions of all Ionian Schools about individual progress/success stories etc.

6. Evaluation of WAAW

In order to establish measurable assessment of how effectively the project is received and utilized, I will carry out the initial WAAW with teachers from the schools assisting and understanding the aims/outcomes.

The program and resources will then be handed over to the school to be repeated to other year groups throughout the year and into the future.

Following the initial WAAW progress of each school can be monitored and assessed by Victoria Turner every 6 months.

Measurable indicators of change will include:

1. a well attended WAAW – pupils registered
2. a well attended school presentation – local community ticketed
3. the establishment of plastic-free programmes both short and long term in school – recorded after 6 months
4. published records of above activities and achievements in local/national newspapers
5. sharing and display of best practice on social media
6. recorded observations and actions of the elected ‘Champions’

The over-arching change we plan to achieve is an embedded and long-lasting consciousness about the environmental issues of waste and to see continued efforts to reduce, reuse and recycle within Ionian schools disseminating into the wider community.

7. Budget

FUNDING and Budget Breakdown

7.1 Start up/one off costs

- Writing/initial planning of the programme - 20 hours
- Translating the programme into Greek (approx 300 Euros quote from JK Translate)
- Designing/printing work booklets and teaching resources/ppts for lessons - 10-15 hours
- Translating the work booklet (approx. 200 Euros quote from JK Translate)
- Purchasing portable projector, speakers and screen for showing PPT slides/maps/video clips/ and lesson outlines (200 Euros via Amazon); portable whiteboards

Assuming an hourly rate of 40 Euros/hr for preparation/teaching the start up/initial cost will be **in the region of 2000 Euros.**

7.2 Teaching resources and expenses required in each school

- x30 printed WAAW work booklets for each pupil - with activities and tasks for the week
- x30 poster sheets/fineliners/glue sticks/coloured paper etc for posters and presentations
- Mini bus hire
- Catering expenses for presentation evening to family
- x10 Medals or T shirts to be awarded to WAAW Champions at end of the week
- Hourly teaching rate assuming 3hr daily lesson for one week (15 hours per week)

These are all required for the trial week too and the total for these resources per school would be **in the region of 1300 Euros**.

If all went well and we were able to run the programme throughout the Ionian - then additional travel/accommodation expenses for each trip.

In sum: about 2.000 + about 1.300 = 3.300

Note: In discussions among Costas and Victoria the estimate has been made that the total cost, as well as that of the weekly cost may be lower. However, since it is a pilot project and Victoria will have to experiment with inputs to students, it is best to say on the safe side and aim for a budget of 3.500 euros.

8 Expected Outputs

1. Completion of the programme design and proposal
2. Attain funding from IEF
3. Attain permission from Corfu Ministry of Education for WAAW to proceed
4. Contact and arrange dates for WAAW with Paxos school
5. Carry out pilot WAAW in Paxos school
6. Evaluate success of the pilot week
7. Moderate WAAW where needed following WAAW pilot
8. Contact and arrange dates from other Ionian Schools for WAAW

9. Assess feedback and outcomes for six months from each WAAW to ensure and encourage a lasting impact of the programme