

St. Roman's N.S.



Green-Schools

Project on

Water

2014-2016

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About Us!

St. Ronan's N.S. is a small rural school situated in Co. Sligo near the Roscommon border. We have a staff of two permanent teachers, one part-time learning support teacher, one temporary resource teacher and one part-time resource teacher. Currently we have 30 pupils on roll.

We have obtained our Green Flags based on the themes of Litter and Waste and Energy.

Figure 1 - Cloonloo N.S.



Step 1: Green-Schools Committee

1. Who sits on your Green-Schools committee?

Our Green-Schools committee consisted of (See Figure 2):

- 6 children (First-Sixth Class)
- Chris Harrison (School Caretaker)
- Heather Cliffe (Parent)
- Michelle Jordan (Teacher/ Green School Co-Ordinator)
- Michael Heffernan (Principal)



Figure 2 - Green School Committee 2015/2016

Our members are selected as follows:

- Our Green-School Committee usually consists of 6 children and 4 adults.
- Each class (First - Sixth Class) has one representative on the Green-School committee (if possible due to the small numbers).

- Priority is given to sixth class children.
- If a number of children from the same class want to become a member of the committee, a lottery takes place.
- Adult members consist of teachers, parents and non-teaching staff (caretaker).
- Parental committee members are selected by lottery also.
- The committee changes after 2 years ensuring consistency for that 2 year period to evaluate the success or further needs of each project.

Our committee operates as follows:

- The *Green School Committee Meetings* aim to be a collaborative effort between the children and adults with the children given as much responsibility as possible.
- The *Green School Committee* meetings are informal in nature and consist of reviewing past decisions and discussing the implementation of new and existing actions.
- It was also decided that in the days following a *Green-School Committee Meeting*, an assembly would be held with the whole school. Here any decisions made or information gathered would be shared with all the children. The children not directly involved on the committee could have an input and share their ideas at these assemblies. Information is also displayed on the *Green School Notice Board* which is located in a prominent position in the hallway inside the front door of the school. (See Figure 3) We also use the *School Newsletter* and *School Website* to circulate information to the wider community.



Figure 3: Green School Notice Board

2. How often does your committee meet?

- We try to meet every month for half an hour approximately to monitor and evaluate the running of the *Green-Schools* project.

3. Please include an example of minutes taken form one of your Green School committee meetings.

See Figure 4 for an example of the Green School minutes.

Figure 4: Example of Green School Minutes

23/11/15

Present: Children, Ms. Jordan, Mr. Heffernan

Since the last meeting we harvested the vegetables - potatoes, carrots, turnips, leeks, onions and fennel. Ms. Jordan and Ms. Savage made vegetable soup. We also had baked potatoes.

Ms. Jordan took water metre readings for a week in November. We compared these with the readings taken last November. We made a graph. The water usage has significantly decreased.

We graphed ESB bills, oil and water bills. These will be displayed on the Green School Notice Board. The Senior Room composed a Water Code together for the school.

Next month we need to send home another Parent Survey about water. We will continue with Cloonloo Clickers, Water Wardens and Inspections.

Mr. Heffernan phoned and visited Ballinfad Wildlife Centre to try and arrange a water based field trip. They appear to be closed. We decided to do a Walk for Water for our Day of Action instead.

We are having a Green School Visit on November 26th at 10 o'clock.

Step 2: Environmental Review

4. For your Environmental Review, did you conduct any of the following?

Essential Actions:

Read the school water meter.	Yes
Conduct a manual water audit.	Yes
Conduct leak tests.	Yes

Recommended Actions:

Conduct a Water Use Survey	Yes
Investigate the water lifecycle of the school	Yes
Conduct surveys/questionnaires	Yes
Locate any local water bodies	Yes
Investigate rainwater harvesting in the school	Yes
Investigate school policies for cleaning products	Yes
Locate nearby Blue Flag beaches/marinas	No
Other	

5. What were the main findings of your Environmental Review?

We carried out our environmental review on water from October to December 2014.

The water supply for our school comes from Lough Gara.

Water Meter

There is a water metre situated outside the boundary wall of the school on the road verge. With this in mind, it was decided that myself, as G.S. Co-ordinator would undertake the reading of the water metre. Photographs were taken of the water metre to show the children how to take a reading.

We took water reading for a week from the 17th - 21st November 2014. (See Figure 5)

	Morning	Afternoon	Day Total	Night Total
Monday	00756 471	00756 738	267	56
Tuesday	00756 794	00757 029	235	118
Wednesday	00757 147	00757 280	133	107
Thursday	00757 387	00757 601	214	60
Friday	00757 661	00757 951	290	
			1139	341
			1480	

Figure 5 - Water Metre Readings from 17th - 21st November 2014

Total water usage for the week was 1480 litres. Further readings will be undertaken in the future to establish (a) a comparative study and (b) the possibility of leaks.

Using this we calculated the current average usage of water per pupil per year is 3080 litres. The recommended average usage of water per pupil per year is 3500 litres.

Water Bills

We also looked at our water bills which we receive on a quarterly basis.

February 2014	14M3
May 2014	12M3
August 2014	14M3
November 2014	4M3

Manual Water Audit

The results of the water audit showed us that we had 5 toilets, 0 urinals and 14 taps in the school. Both mainstream classrooms and the staff room have a sink with hot and cold water and are equipped with mixer taps. The remainder of the taps are push taps. We have an outdoor crosshead tap situated near the raised beds. We have 5 toilets in our school; two boys, two girls and one staff toilet. The average capacity of the toilet cisterns in the school is 7 litres.

We investigated the water pressure in the taps and found two that needed to be adjusted - one in the boy's bathroom and one in the Senior Room.

Leak Tests

We had no leaking taps, toilet bowls or radiators. We conducted leak tests on the toilet cisterns using food dye and found none. We conducted an overnight major leak test to check for leaking pipes and found none.

Water Survey

We conducted a water use survey with each family in the school and compiled the results.

Water Survey

1. Which of these do you regularly use at home? Shower____, Bath____, Sink_____.
2. Do you leave the water running while brushing your teeth? Yes____, No_____.
3. How many times is the shower used per day? 0/1 times____, 2/3 times____, 4/5 times_____, 6 or more times_____.
4. How many sinks do you have in your house? 1____, more than 1_____.
5. How many times is the dishwasher used per day? 0/1 times____, more than 1 times_____.
6. What do you mostly use when washing the dishes? Dishwasher_____, Sink_____.
7. How many times a week do you use your washing machine? 1-4 times____, 5 or more times_____.
8. Which one do you think uses more water? Dishwasher_____, Washing Machine_____.
9. How many toilets do you have at home? 1 or 2____, 3 or more_____.
10. What is the capacity of your toilet's cistern? Approx. 6 litres____, Approx. 9 litres_____, Don't Know_____.
11. How many litres do you think your household uses per day? Under 100 litres____, 100-200 litres____, Over 200 litres_____.
12. Are there any leaking pipes or taps in your home? Yes____, No____, Don't Know_____.
13. Have you any water saving ideas:

Thank you for taking part in this Water Survey. The information we learn will help us in our work towards our Third Greenschools Flag for Water!

Cleaning Products

We reviewed the use of cleaning products in the school and found them to be environmentally friendly and non-hazardous.

Rainwater Harvesting

As we have raised beds in our yard, we decided that rainwater harvesting would be a good idea for watering plants and vegetables.

Step 3: Action Plans

6. Please type in your current Action Plan below:

Aim 1: To ensure the entire school is aware of Green-Schools Energy programme and to encourage full participation in the programme.

Year One 2014/2015			
Action	Person	Time	Progress
Water Survey for Parents	Parents	Dec '14	Completed
Create graphs/posters to show audit results	All	February '15	Completed
Posters competition - Water Awareness	All	February '15	Completed
Set up a Green School Notice Board focusing on the new theme of Water.	Ms. Jordan	March '15	Completed
"Turn it off" posters	All	May '15	Completed
Year Two – 2015/2016			
Action	Person	Time	Progress
Follow up Parent survey	Parents	Dec '15	Completed
Posters competition - Water Awareness	All	February '16	Completed

Aim 2: To reduce rate of energy consumption (oil/electricity)

Year 1 – 2014/2015 & Year 2 – 2015/2016			
Action	Person	Time	Progress
Compare and graph monthly rate of energy consumption with same months from previous year.	Senior Room	Monthly	Ongoing
Cloonloo Clickers - Switch off plugs/light at breaks/home time.	All	Daily	Ongoing
Don't overfill the kettle	Teachers	Daily	Ongoing
Shut doors	All	Daily	Ongoing
Keep windows closed when heating is on	All	Daily	Ongoing

Aim 3: Continue work on Litter and Waste

Year One – 2014/2015			
Action	Person	Time	Progress
Collect used clothing for Recycling	All	Nov '14	Completed
Re-label the bins.	First/ Second Class	March '15	Completed
Using the bread bin, compost bin and recycling bin properly	All	Daily	Ongoing
Classroom Inspections	All	Daily	Ongoing
Plant hanging baskets	All	April '15	Completed
Raised Beds Planting	Claire & Children	April '15	Completed
Year Two – 2015/2016			
Action	Person	Time	Progress
Using the bread bin, compost bin and recycling bin properly	All	Daily	Ongoing
Classroom Inspections	All	Daily	Ongoing
Plant hanging baskets	All	April '16	
Raised Beds Planting	Claire & Children	April '16	

Aim 4: Reduce the rate of water consumption by 20% by June 2016.

Year One 2014/2015			
Action	Person	Time	Progress
Establish a Green School Water Committee	All	Sep '14	Completed
Attend seminar given on water theme at Sligo Co.Co. Offices by Lisa McDaniel	Ms. Jordan	30th Sep'14	Attended
Read water meter and record measurements.	Ms. Jordan	Nov' 14	Completed
Count number to taps, toilets etc in school	Alex Gráinne	Dec '14	Completed
Conduct leak checks of all taps and radiators	Senior Room	Dec '14	Completed
Conduct water leak tests in all toilet cisterns/toilets	Senior Room	Dec '14	Completed
Measure the capacity of toilet cisterns	Senior Room	Dec '14	Completed
Insert "Rainbow Bottles/Hippos" in cisterns in school.	Junior Room	April '15	Completed
Purchase water-butt for school	Mr. Heffernan	April '15	Completed
Install water-butt in suitable location in yard	Chris	April '15	Completed

Set up Water Warders	All	May '15	Completed
Year Two 2015/2016			
Action	Person	Time	Progress
Establish a Green School Water Committee	All	Sep '15	Completed
Set up Water Warders	All	Oct '15	Completed
Read water meter and record measurements.	Ms. Jordan	Nov' 15	Completed
Day of Action – Walk for Water	All	March '16	Completed

Step 4: Monitoring and Evaluation

7. Describe:

(a) How you monitor and evaluate progress for the Water theme:

- The regular meetings held by our Green School Committee ensure that a progressive approach is taken to achieve our action plans and to keep us on track concerning the tasks assigned to individuals/groups.
- Feedback from whole school assemblies.
- Reading the water metre morning and evening informs us of our water usage. Of particular importance is the reading of the metre during those evenings followed by a morning reading when it is known that the caretaker is not on the premises and therefore water is not being used, to inform us of the presence of leaks.
- Looking at the water bills also inform us of our water usage and identify if there are any major pipe leaks.
- The Water Wardens are responsible for checking for leaks in the taps, cisterns, toilet bowls and ensuring the taps are not left dripping.
- Carrying out a follow up survey to see how attitudes and levels of awareness changed regarding water. The information learnt from the results of the water survey we carried out helps us to formulate advice tips for families.
- Checking and revising Action Plans.
- Displaying graphs, pictures, results on Green School Notice Board.

(b) How you maintain and monitor the Litter and Waste and Energy themes:

Litter and Waste Theme:

- Daily classroom inspections to ensure classrooms are kept tidy.
- Random bin checks to ensure bins are being used properly.
- Counting the number of bags of rubbish leaving the school for landfill/recycling daily/weekly.
- Teaching the new/younger children how to clean out their yoghurt pots etc, how to use the bins correctly, to have reusable lunch boxes etc.
- Regular reciting of the Green School Code.
- Forbidding food/drinks into the yard.
- Reusing paper, boxes, toilet rolls etc for Art .
- Recycling of clothes and batteries.
- Displaying graphs/pictures/results on Green School Notice Board.
- Discussion with Green School Committee and feedback from whole school assemblies.

Energy Theme:

- Taking electricity meter readings.
- Monthly graphs comparing electricity used during the current month/same month past two years.
- Yearly graph on oil usage.
- Cloonloo Clicker for each room in charge of turning off light switches and appliances at break time/home time.
- "Switch it off" signs are clearly visible throughout the school near light switches, computers and appliances.

- Displaying graphs/pictures/results on Green School Notice Board.
- Discussion with Green School Committee and feedback from whole school assemblies.
- Regular reciting of the Energy Code.

8. Please compare the amounts of water your school used for two periods over the duration of your work on the Water theme:

	Start date for period over which consumption was calculated	Finish date for period over which consumption was calculated	Number of school days in this period	Amount of water used in Litres	Average number of litres used per person per day	How do you measure your water consumption.
Year 1	Monday, 17th November 2014	Friday, 21st November 2014	5	1480	10.96	Read the meter.
Year 2	Monday, 2nd November 2015	Friday, 6th November 2015	5	977	6.51	Read the meter.

Step 5: Curriculum Links

9. Please give the numbers and ages of students involved in curriculum work and information on the topic or subject areas addressed:

Subject	Class Group	Environmental Issue Covered
English	3 rd - 6 th Class	Writing Water Code
English	Junior Infants - 6 th Class	Reciting Water Code
English	Junior Infants - 6 th Class	Creating Signs for "Turn it Off " Campaign
Irish	Junior Infants - 6 th Class	An Aimsir
Maths	3 rd - 6 th Class	Using calculators to calculate electricity usage on daily/monthly basis
Maths	Junior Infants - 6 th Class	Measures - Capacity
Maths	3 rd - 6 th Class	Data - Creating graphs of water usage
P.E.	Junior Infants - 6 th Class	Outdoor and Orienteering- Walk for Water
P.E.	Junior Infants - 6 th Class	Aquatics (Swimming Lesson in Carrick-on-Shannon)
Geography	Junior Infants - 6 th Class	Natural Environments - The Local Natural Environment - River/Lake/Seashore/ Bog Environment

Geography	3 rd - 6 th Class	Human Environments - People at Work - Fishing Industry
Geography	3 rd -6 th Class	Human Environments - People at Work - Tourism
Geography	3 rd - 4 th Class	Natural Environments - Lakes, rivers and seas of my county
Geography	Junior Infants - 6 th Class	Natural Environments - Weather
Geography	5 th - 6 th Class	Natural Environments - Lakes, rivers and seas of Ireland
Geography	5 th - 6 th Class	Natural Environments - Physical features of Europe and the World - Lakes, rivers, seas
Geography	Junior Infants - 6 th Class	Natural Environment The Local Natural Environment- Water in the local environment - Water Cycle
Science	Junior Infants - 6 th Class	Living Things - Plants and Animals of River/Lake/Pond /Sea Habitat
Science	Junior Infants - 6 th Class	Living Things - Plants and Animals - Explore conditions for growth for bulbs/seeds.
Science	Junior Infants - 2 nd Class	Materials & Change - Explore the effects of water on various materials.

Science	Junior Infants - 2 nd Class	Materials & Change - Identify waterproof materials.
Science	Junior Infants - 6 th Class	Living Things - Plants and Animals in Polar Habitats
Science	First/Second Class	Energy & Forces - Magnets - Investigate if magnets work through water.
Science	First/Second Class	Energy & Forces - Forces - Investigate how moving water can make things move.
Science	First/Second Class	Properties and Characteristics of Materials - Identify absorbent materials.
Science	Third/Fourth Class	Energy and Forces - Forces - Investigate the pushing force of water.
Science	3 rd - 6 th Class	Materials & Change - Explore ways of separating materials - water and salt
Science	Junior Infants - 2 nd Class	Energy & Forces; Forces - Floating & Sinking
Science	Junior Infants - 2 nd Class	Materials & Change - Mixing (salt and water, sugar and water, oil and water)

Science	3 rd - 6 th Class	Living Things - Plants and Animals - Processes of Life : Life Cycle of Salmon
Science & Geography	Junior Infants - 6 th Class	Environmental Awareness and Care
History	Junior Infants - 2 nd Class	Story - Christopher Columbus
History	Junior Infants - 2 nd Class	Story - Children of Lir
History	Junior Infants - 2 nd Class	Water Long Ago
Music	Junior Infants - 2 nd Class	Listening and Responding to Music - Drip Drip Drop Little April Shower/ The Lonesome Boatman/La Tempesta di Mare /Under the Sea.
Music	Junior Infants - 2 nd Class	Composing - The Sea
Music	3 rd - 6 th Class	Performing - Song Singing - Rio Grande
SPHE	Junior Infants - 6 th Class	Myself - Safety and Protection - Safety Issues - Water Safety
Visual Arts	Junior Infants - 2 nd Class	Fabric and Fibre- Sea Weaving, Socktopus, Jellyfish.
Visual Art	Junior Infants - 2 nd Class	Paint & Colour - Paint picture of boats on the sea.
Visual Arts	Junior Infants - 6 th Class	Water Posters



Floating & Sinking



Designing & Making Boats



Vegetable Soup



Planting Seeds



Waterproof Materials



Antarctic Role Play Area



Creating Posters



Boats

Figure 6 - Curriculum Work in Action

Step 6: Informing and Involving

10. (a) Describe your Day of Action:

To celebrate World Water Day on March 22nd (during Easter Holidays) and to spread awareness of water issues around the world we organised a Walk for Water on Tuesday 1st March. All the children in the school participated in the walk by carrying water in a backpack for a distance of 2 kilometres. The aim of the walk was to raise awareness of water scarcity in developing countries and to develop empathy for the lives of children in these countries.

We began by filling up the empty bottles with water from the water butt. These bottles were then distributed among the children and packed in bags. We set off on the walk supervised by the teachers. It was very enjoyable and luckily the weather was good. When we returned to the school, we poured the water into an empty sand tray for the children in the Junior Room to play with. This ensured there was no water wasted!!! All the empty bottles were then recycled.



Figure 7 - Our Day of Action

(b) How is the whole school informed of and involved in, the Green-Schools Programme?

- Every year new members are brought onto the Green School Committee when Sixth Class children on the committee move onto Secondary School. The parent/children members of the committee are changed every two years when a new Green School Theme is introduced.
- After each Green-School meeting, a Green-School assembly is held with all the children in the school. Children are informed about what targets have been achieved and information is provided and discussed.
- All children in the school are involved in implementing actions from the Action Plan.
- A Green-Schools notice board is located just inside the main entrance of the school for all the children in the school to see. This notice board displays the action plan and up to date information about Green-School activities. The notice board is regularly changed and updated.

(c) How is the wider community informed of and involved in the Green-Schools Programme?

- The Green School Coordinator attended the seminar delivered by Lisa McDaniel on 30th September 2014 in Sligo Co. Council offices on the water theme.
- A Green-Schools notice board is located just inside the main entrance of the school for all the parents and visitors to the school to see. This notice board displays the action plan and up to date information about Green-School activities. The notice board is regularly changed and updated.

- The school newsletter is used to bring information about the Green-School programme and the children's on going work to parents, teacher and the Board of Management.
- The school website www.cloonlooschool.ie is regularly updated with Green School news.
- Art work involving recycled materials is displayed in the hallways for all children, parents and visitors to the school to see.

Step 7: Green Code

11. Please reproduce your school's Green Code for the Water

Theme:

Cloonloo Water Code

This is our water saving song,
You must not leave the tap on long.
If you get a water butt,
Your water bills will be cut.
You'd better start seeking,
To check if your pipes are leaking,
So don't waste your H₂O,
And you'll manage to save your dough!

12. Describe how the Green Code was agreed and how it has been integrated into school life.

The children in the Senior Room brainstormed ideas for the Green Code. The children were put in small groups to pool their ideas towards either a slogan or poem which would be catchy and encapsulate the essence of the water theme. All the ideas were recorded and discussed.

It was a difficult task to select one single slogan from the numerous ideas, so in the end, we combined four which we felt captured the spirit of the theme.

The Water Code is said on a daily basis and is displayed proudly on the Green School Notice Board.

Feedback

(a) Please highlight any positive aspects you encountered while working on the programme.

We all feel at St. Ronan's N.S. that the Green-Schools programme has greatly enhanced our understanding of water and ways it can be wasted and conserved. It is a very practical theme in the current climate and one that is easily applicable at home as well as school.

Of the three themes we have worked upon during the Green School Programme so far, "Water" has been the most enjoyable. It is a tangible, measurable and visual subject and has many curriculum links.

(b) Please highlight any negative aspects you encountered while working on the programme?

The reading of the water meter posed a safety concern, being situated outside the perimeter wall bordering the school beside a road. Therefore the staff took the decision that the responsibility to read the metre would fall to the Green School Co-ordinator.

This theme is very applicable to field work e.g. fieldtrips to lakes, rivers, seashore, water treatment plants, reservoirs etc. However, as we are a rural school, it costs a lot to hire buses to undertake these trips.

(c) How do you think the programme could be improved?

I think it is a very comprehensive, well organised programme. Clear guidance is given when a school is beginning a new theme . The Green School Website has lots of samples of projects, resources and information.

It might be a help to give a clearer outline of what is expected during the Green School Renewal Visit e.g. what questions might be asked.

Green School Awards Ceremony

In November an inspector from Sligo County Council, Olivia Crossan, came out and met with the Green School Committee and all the children. She was very impressed with all the children and their knowledge of the project. Just before the Easter Holidays we submitted our completed Green School Project Application and in May we received a letter saying we had been awarded a Green Flag.

On Wednesday 25th May, Ms. Jordan and the older members of the Green School Committee went to Claremorris and were presented with the Water Green Flag at the Green School Awards Ceremony.



Figure 8 - Green School Award Ceremony

To celebrate this great achievement we had a bouncy castle at school on Tuesday 21st of June for the day.



Figure 9 - Bouncy Castle

We raised the flag on the day of the Summer Holidays (24th June) when all the parents were present.



Figure 10 - Flag Raising