

The 3 Peas Newsletter

(Pupils Protecting the Planet)

July 2018



**Eco-Schools
Silver Award**

This term pupils have continued to participate in the Eco Schools scheme. The school have now gained their silver award and are working towards being awarded Green Flag status. The Eco Club have composed a rhyming Eco Code for the school.

School Eco Code

Here's our Eco Plan,
Recycle when you can.

It's not too tough,
To recycle stuff.

Lets go Green,
By keeping the school clean.

Pick up the litter,
Even if the weather's bitter.

If we use a compost bin,
Then the worms will win.

Reduce our plastic waste,
Sea creatures don't like the taste.

Lets be cool,
Eco clean the school.

Have a healthy lunch,
It's really nice to munch.

So when you can,
follow the eco plan.

Pupils have continued to work on the 3 topics chosen for the Eco School Awards of Healthy Living, Waste and Litter. They have also participated in other eco topics.

Healthy Living

Fruits and Vegetables

Early Years Pupils and key stage 1 pupils have learnt about healthy eating this term. They have enjoyed reading the book *Oliver's Vegetables* by Vivian French. The book is a colourful story about a boy who only eats chips and doesn't like other vegetables until he goes to his Grandpa's house. By the end of the story Oliver realises he likes the taste of many vegetables.



Pupils also learnt which countries grew different fruits. They had fun making fruit palm trees out of apricots, bananas, grapes, kiwis and satsumas before munching them up.

School Plants

When the school did their Environmental Review in January the Eco Club noted that there was only one indoor Plant. The club decided it would be beneficial to have more plants in school. Not only do plants look nice, but there are also other health benefits to having them.

In 1989 the NASA Clean Air Study found that certain common indoor plants may provide a natural way of removing toxic agents from the air. The Eco Club researched which plants would be easy to look after, were not too big and were good at removing toxins. The club asked parents, if they had any of these plants spare to donate them to school.

The School now has an Aloe Vera Plant, Dracaena, Snake Plant and Spider Plant. There is one in each classroom. Members of the Eco Club water them when needed



Gardening Club

On Tuesdays some pupils have attended the afterschool Gardening Club, kindly run by Dr Upchurch. Among other things the children grew, potatoes, beans, kale, spring onions, peas and strawberries. Pupils also watered the plants during lunchtimes. Staff, students and their families have enjoyed eating the produce.



Waste

The eco club are concerned about waste, particularly plastic. During a meeting on 16th May, members compiled a list of ways families could reduce their plastic consumption. The list was sent out to all families in hope that it would inspire them to reduce their plastic waste. The eco club also demonstrated during an assembly on 18th May, some of the items they use, or things they do to reduce plastic waste.

Some pupils sent in photos of things they have done to help cut down on their plastic waste.



Molly and Charlie bought organic porridge oats in a paper bag instead of in plastic packaging

Charlie bought dried mango in a biodegradable bag instead of the usual plastic packaged ones



Kyra's family buy an organic fruit and vegetable box, instead of buying it all at a supermarket that packages the organic food in plastic.

Molly bought Orange Juice in a glass bottle instead of plastic. Glass is easier to recycle than plastic



Charlie bought his fruit and vegetables at an organic market where they use no plastic packaging.



Tullulah and her family use wooden toothbrushes instead of plastic ones.

Plastic Clever School

Immanuel Christian School have met the criteria for being a “Plastic Clever School”, by encouraging the use of reusable water bottles and cups, not giving out single use plastic cutlery and plates and encouraging reusable packed lunch boxes and wraps instead of cling film.



Packaging

Early years and Key stage 1 pupils have looked at packaging this term. Pupils sorted out packaging into paper, cardboard, plastic, glass and metal. They talked about why certain packaging was used and what items could be recycled. Pupils talked about why recycling is so important. Pupils also enjoyed making rockets and aliens out of some of the old packaging.



Reducing Plastic Waste in School

Alongside reducing plastic waste at home, the Eco Club also wanted the school to reduce its plastic waste. Until now we have bought handwash in 250 ml bottles. Although the plastic bottles were recyclable, the pumps were not. We have now purchased a 5 litre bottle of Bio D handwash. This will save 20 pumps from going to landfills and also uses a lot less plastic than 20 bottles would. The hand soap is fully biodegradable so kinder to the environment than the current brand we used. During assembly on 6th of July members of the eco club told the school about the new handwash.



Litter

Pupils have continued to take turns in keeping the school grounds clean using the new litter pickers.



Molly and Charlie have helped members of the WI to litter pick around Pawlett village.

We are also hoping to organise a few litter picks over the summer holidays for families to get involved in.

KS3 Science

In Biology KS3 have looked at Endangered species and habitat loss. Pupils all made poster showing why the species habitat is being destroyed. Molly discovered that Palm Oil plantations were taking over Orangutan habitat, and Kyra explained that deforestation was forcing Poisonous Dart frogs in to small areas, where there was not enough food for them all. Kim told the class that too much Bamboo is being cut down and as it is 99% of a Giant Panda's food source, they are not getting all the goodness that they need. Immie and Alfie both researched tigers, and Miyah Elephants, the animals were all being illegally poached for their tusks and skins. Rebekah found out about Sea Otters. Sea Otters were eating Plastic by mistake thinking it was food, this was not good for their tummies. This inspired part of our Eco Code: "Reduce our plastic waste, Sea creatures don't like the taste."



KS3 have also studied the effects of Bioaccumulation and Biomagnification. When people spray crops with pesticide or insecticides, the harmful chemicals have a way of hurting more creatures than were intended. One example, is when small grubs and pests eat plants with the chemicals on and get ill, then predators such as sparrow eat the grubs the chemicals are transferred into their bodies. They may eat ten grubs to get their energy, so the chemicals accumulate in their bodies. The higher up the Terrestrial Levels you go, the worse the problem gets. Eventually top predators like the Bald Eagles start getting effected, and in fact may start dying out. This will then have a knock-on effect to the whole food chain. Therefore, in School Gardening Club, we sprinkled egg shells instead of chemicals on our plants, which is natural and does not harm the environment.

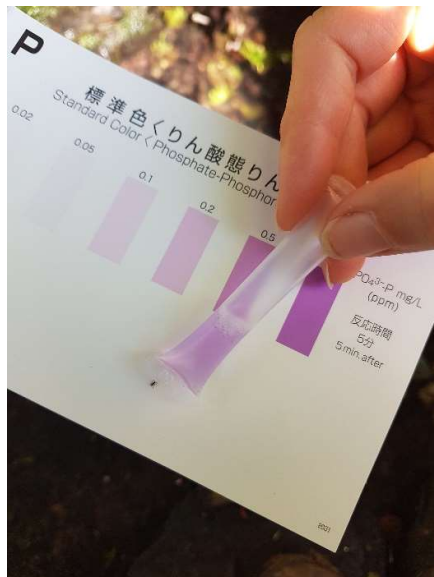


Another damaging after effect of these chemicals is when they get into water flow. Chemicals run off the fields and into rivers. This starts to effect small animals, eg: fish, and later through the process of Bioaccumulation, larger animals like otters. A particular case study showed that several years ago in the east of England, there was a lot of DDT used in arable farming, this got into the water, and now there are no otters in the east of England. After this shocking information, eco club decided to take part in some Citizen science and test water for potentially harmful chemicals: Phosphates and Nitrates.

Water Sampling

Some of the Eco club members participated in Bristol Avon Water Blitz (23rd – 29th). It was part of a Citizen Science project monitoring freshwater quality. Fresh Water Watch sent the school some nitrate and phosphate water quality testing tubes, a sample collecting container and colour charts for nitrate and phosphate tests.

Water samples were taking in Yate, Downend, Willbridge Mills and Snuff Mills. We had hoped to take water samples in the nearby Wapley Nature Reserve, but due to the very dry weather, the stream and pond had both dried up.



Water from the stream or river being tested, was collected in a sample pot. The test tube containing a reactant, sucked up some of this water and was shaken for a few seconds. The water gradually changed colour. After three minutes, the shade of pink indicated the concentration of nitrate. After five minutes, the water colour indicated the concentration of phosphate. We measured our recordings and sent in our results to Water Watch using their phone app. Information on the presence of litter, floating algae, and frothing were also noted. Phosphates and Nitrates are chemicals often used in farming which can end up in freshwater. Too much can be harmful which is why Fresh Water Watch want to monitor levels.

Save Antarctica Project

In Topic, KS1 & 2 have been working on a project called “Save Antarctica.” They have studied how CO₂ affects Antarctica, through Global Warming. After some research lessons, the class watched a clip that another school had made about saving Antarctica. The pupils were split into three teams with the one objective: “Save Antarctica”. The groups all made their own excellent films explaining what they

had learnt. The films explained about greenhouse gasses, how we can cut back on producing CO2 and the effects of global warming. Some included a song and technical graphs. They all had a News Flash part, where the class dressed up as presenters and interviewed each other about Antarctica. On the last Friday the whole school were invited to watch the Premier. It was FANTASTIC!



The pupils also made models of Antarctica including clay animals

Writing about the World

In English Language; Y8 have worked through a Unit about Writing about the World. We wrote voice overs for documentaries and wrote pieces about the intricacy of leaves. The topic also covered some articles about beach cleans which we studied. Some of the class had watched Blue Planet 2 and explained about a beach clean featured on the show. There were some class discussions on environmental issues throughout this topic as well as writing.



Bug Hotel

Some of the children made a bug hotel. It's a safe place for bugs to hideaway.



By providing the right habitats the school can greatly increase the number of beneficial insects. Some wild invertebrates, such as bumblebees and solitary bees, are declining in numbers in the wider countryside, so by providing homes we can contribute to their conservation. The bug hotel was built out of old pallets, roof tiles, stone, piping, bamboo cane, pine cones, leaves and straw. Marigolds were planted on top to encourage the bees and butterflies.

Says Court Farm

Primary aged pupils went on a visit to Says Court Solar Farm in Frampton Cotterell. The farm has created wildlife friendly habitats. There are over 3000 trees, vast hedgerows, a barn owl corridor and wildflower meadow. Pupils were split into groups. Each group was given a tyre to throw onto the grass. Pupils then investigated the types of grasses, flowers and living things inside their tyre.

Pupils were also given a picture of a leaf and information about the tree it came from. The children had to see if they could find the type of tree at the farm. Each group presented the information about their tree to the rest of the class.

