

Systems thinking in education and government

Heini Thomas

Starts 3 min 55 sec, ends 20 mins 0 sec

I'm Heini Thomas, head of Ysgol Y Dderi just 10 minutes down the road between Lampeter and Tregaron, and I'm going to talk a little about our vision as a school. Every school in Wales with the new curriculum has been looking again at their vision and in brief ours is 'from the little acorn' – we see every child as a little acorn and we want them to grow and develop, healthy and confident in every possible way. And with strong roots too. We have a short version and a longer version which includes the new national curriculum that is coming to every school across Wales. The 'natural curriculum' has always been important to Ysgol y Dderi but when we received a Welsh copy of this glorious book from Richard – [*Harmony, a new way of looking at our world and learning from it*], it spurred us to look with new, fresh eyes. This wondrous book is teeming with colour, it is a feast for the eyes but also excellent quality and is adaptable.

So we looked at the vision of the Harmony Project. And the vision is "*the harmony project offers an approach to education that promotes learning from nature in addition to learning about nature and in nature. This is what we call a natural curriculum. When teaching and learning is structured in this way children and all learners are better placed to develop a more connected, systematic way of seeing and understanding the world and their place in it*". And this vision weaves perfectly with our school vision but as I said brings new eyes and a freshness to us at the same time.

So as we look at the natural curriculum we also consider the virtues that are important to us as a school to be developing in the children, such as skills, literacy, numeracy, digital competence and the general well-being of all our children. When I was asked to speak for 10 minutes about how we use the natural curriculum in Ysgol y Dderi I didn't know where to start, because there are myriad opportunities to use it in school. But remembering the lack of time I decided to focus on two themes we have been doing since September.

With Year 3 we have been looking at the 'local lunch' as the theme of the half-term. We start each new theme by creating a thought map, where the children suggest what they would like to learn during. We can't always do everything the children want – before now we have been asked for space travel! Well, the income doesn't quite stretch to that! So off we went with our theme.

We went to Llwyn y Groes, visiting Becky at Bwlchwernen Farm to see how Hafod cheese is produced. The children were shown around the fields to see how an organic system feeds cows and calves and then we went to see how she makes the cheese. And, of course, if you give food to children they will always remember everything, I can tell you. They were over the moon to taste the cheese.

We then went back to school to digest this rich experience, back to the curriculum and the skills I mentioned - literacy, numeracy, wellbeing, digital competence and so on, and the children went back to being little 7-year-olds writing their instructions about how to make cheese with Becky at Bwlchwernen. And the teacher collected photos of the day and asked the children what wonderful

things about the day do you remember? Seven-year-olds, remember. When children use every one of their senses, the level of learning is more intense.

The children grow Hen Gymro wheat in the school garden. This is a special strain of wheat which can cope with the Ceredigion weather. On a day like this you can see that this is a very special type of wheat! The children harvested it then quite literally "*separated the wheat from the chaff*", going out with large white sheets and using the wind to free the wheat.

Off we went then to Felin Ganol in Llanrhystud for the children to study the process of turning wheat into flour. Maybe you have seen it all before – "*You've seen it all before? Too bad!*" – but to see it through the eyes of children seeing it for the first time is always a thrill. And when Andy pulled the gate away to allow the water to flow over the waterwheel the children's reactions were 'Wow' and to get that momentum in learning is immensely important.

Back to the mill and seeing the cogs moving, grinding and creating this special flour from grain we have grown, and back to school we went with a sackful. Back to literacy and numeracy. The children described their day very richly. At Felin Ganol there is a board showing the different types of wheat they sell and also the different weights they sell it so some mathematics from that enriched the learning.

We swim every fortnight in a swimming pool at Lampeter so on the way back one Tuesday we stopped with one of our parents. We are lucky, one of our parents runs Watson and Pratts, and Lucy had created an opportunity for the children to see sourdough being prepared in the bakery. As I say, give food to children and they remember everything. If the senses are all stimulated the learning is more valuable.

We decided as a highlight (because we always have a theme highlight every half term) to have the local lunch as a pop-up restaurant ('Caffi Unnos') for the parents of Year 3 and here we have the children preparing fresh apple juice from apples in the orchard at school and this is Tim, one of our former parents. His partner Angie was there too and they helped the children make this special apple juice for the parents for the Caffi Unnos.

Elli here is tasting tomato soup prepared from tomatoes grown in the school garden, and the onions came from there too. And the children are using Hen Gymro flour to make the bread for the evening. And they sewed special aprons for themselves and I can tell you, they thought they were the bees' knees! Everyone was ready to guide their parents to this special Caffi Unnos.

And on the table the children had put pottery plates (we are lucky to have a kiln in the school) and flower arrangements, again from the school garden. A lot of numeracy came into it, working out how to fit 88 people into the school hall. And how to feed 88! I don't know about you but sometimes things go pear-shaped with me when I just have to double a recipe and this was quadrupling and more! A lot of juggling numbers went into it.

But we had a wonderful evening. On the screen are photos of the children visiting Bwlchwernen, Felin Ganol, Watson and Pratt's and out in the garden at school cooking. They talked intelligently and civilly with the parents about the food being served that evening. Seven-year

olds, remember! Quite a result. And blackberry crumble with cream for pudding. Everyone enjoyed themselves enormously. A wonderful evening.

The digital aspect again - an example of one of the menus created. And they also wrote letters of thanks to all the people who'd helped with the journey. A very memorable experience. I am happy to bet you that in 10 years the children will still remember it.

The other theme. In September we started a theme about 'skilful doctors' for years 5 and 6. Once again we started with a thought map of everything they would like to do. We went to Myddfai and walked up the path to Llyn y Fan where the children heard the legend of the Lady of the Lake read by the lakeside. A magical experience. And, of course, the Doctors of Myddfai are the descendants of the Maid of Llyn y Fan. So we researched recipes and the story of the Doctors of Myddfai, and visited the Botanic Garden on our way home. We were shown around and told about the healing skills of the plants and visited the apothecary's shop there. There was a wealth of written work and descriptive work because all the senses were stimulated. This all translates into better written work, numerical work, health and digital skills.

I love the poem *The Little Border*, by Crwys. It's one of my mother's favourite poems. And there is a line in it about plants being chosen for "their goodness not their looks" and there is a chance in so much of Welsh poetry to look into attitudes about nature. And there is a line about "a little here and there" where people share plants, cuttings or where a plant has got too big for its pot, and how things get passed on. I lost my mother four years ago but she had pots of lavender which were pot-bound. "Do you want these for the school?" "Yes, please," I said and off to the school with the lavender pots for the garden. And the children harvested the lavender this year to make lavender bags to help people sleep better. Children nowadays don't appreciate that their bodies need sleep to be healthy. And it is a delight to think that my mother is helping children from year 6 to sleep better at night too.

One of our parents who runs The Wild Welsh Soap Company came in and talked about the soaps and ointments she made which are good for the skin, and she showed the children how to make them. The children made calendula ointment and ointment from comfrey and meadowsweet, inspired by recipes from the Doctors of Myddfai and these are being sold in local shops. And on the right there the children are harvesting *afal bwci*, rosehip in English but I do like the Welsh name, *afal bwci*. and it is extremely good for the immune system. I can't say that it cures Covid but the levels of Covid among the children of year 6 were very low. Just saying!

And of course the highlight for the theme here was running a shop. The children made the ointment, made the soaps, made the syrup and then they sold the produce and worked out the profit from doing that.

We work a lot with our friends in Europe. We have created connections with several schools in Europe over 25 years. Usually, we travel back and forth each year but unfortunately because of Covid we weren't able to go this year. However, we have maintained the connection digitally so we sent them the legend of the Maid of Llyn y Fan to our friends in Norway, Italy, Latvia and Slovenia and they response was fantastic. They replied with tales from their countries. For example, there is a special goat in Slovenia and when it bleeds, pink roses grow from the earth and these are very health-giving roses. In Latvia they boil pine needles in water with sugar for three hours and pour that into a container to cool and use it for whooping cough. And in Italy they harvest olives and there are

lovely photos of our friends in Sestini harvesting olives and then pressing them and making wonderful lip balms from them. So there is a mass of work which enriches our curriculum, working hand in hand with literacy, numeracy, digital skills and our natural curriculum. Thank you all very much for listening.