



Listening

1. FELADATSOR

Part 1 Mathematics, my father and me



If you grew up in Australia in the 1940s, 50s and 60s, there's a good chance you studied maths with the help of the textbooks written by two high school teachers, A. G. Aitkin and B. N. Farlow. I knew the books well, because I used them too, and Alec Aitkin was my father. They were mostly for the early years of high school, and he would write them, and draw all the diagrams, on the dining-room table outside my bedroom, from about 6:00am until breakfast, which was his job too. In later life, I followed him both in writing books and in making breakfast. He was a good role model.

Dad was convinced that everyone had maths in them. I could counter, later in life, with stories of my friends who had become maths teachers, and loved it, though they had not been proficient at the subject at school. I was the eldest of three boys, and all of us turned out to be decently competent at whatever we studied, but I was the cause of much head-shaking when school reports came in: 'You should do much better ...' was a common summary. Why don't you go back when you've finished and check everything you've done? You'll do a lot better that way.'

At the end of my sixth class I followed his advice — perhaps he had given it again the night before the exams. The papers were OK, and as usual, I worked quickly. Instead of looking around to see if I was the first to finish, I went back and checked. I certainly had made errors, and fixed each of them up. When the results came out, I had scored a perfect 400 out of 400 for all the mathematics papers. Dad was jubilant, and the experience stayed in my mind thereafter. What is more, I felt comfortable with numbers, and still do. Today we call that feeling 'number sense'.

In 1950, Dad went to be head of the mathematics department at Armidale Teachers College, and most of my secondary schooling was in Armidale. At the end of the third year, I had to make an awkward choice. My best subject was history, but I liked maths too. Ah, they were opposed, and I couldn't do

physics without maths. My parents didn't press for one route or the other. It was, finally, up to me. So I went down the humanities path. I have many times wondered what would have happened if I had done what my brothers were to do — double maths, physics and chemistry.

Meanwhile my father had become involved in teaching teachers how to teach mathematics, both in primary school and in high school. He became known to generations of teachers as 'Tin Tin', not because of any daring exploits, but because of his specific pronunciation of 'ten', as in 'tin times tin'. He already believed that the core problem was the way in which children were taught arithmetic in infants and primary school, and he set out to solve it. He developed a wide network of primary teachers who understood what he was about.

In 1957, on long-service leave overseas, he encountered the coloured rods invented by the Belgian primary school teacher Georges Cuisenaire, and fell for them at once. Back in Australia they became a basic element in his arsenal, because their use as play allowed students to see number relationships for themselves. His enthusiasm and competence meant that he infected young teachers with the same possibilities, and they wrote to him about their successes. By the time he retired in 1967, there were few places in Sydney or in the countryside where he did not have at least one follower.

Part 2 | Chocolate and its history

Track 5

I'm Bob Doughty with EXPLORATIONS in Voice of America. Today we travel around the world exploring the history of chocolate. Its story begins with a plant whose scientific name, *Theobroma cacao*, means "food of the gods." For centuries, people have been enjoying the rich flavor of chocolate, a product made from this plant. Join us as we tell about the history of chocolate and how it is produced. We will also meet Jane Morris, a chocolate maker in Washington, DC.

Most people today think of chocolate as something sweet to eat or drink that can be easily found in stores around the world. It might surprise you that chocolate was once highly treasured.

Historians believe the Maya people of Central America first learned to farm cacao plants around two thousand years ago. The Maya took the cacao trees from the rainforests and grew them in their gardens. They cooked the cacao

seeds, then crushed them into a soft paste. They mixed the paste with water and spices to make an unsweetened chocolate drink. Cacao and chocolate were an important part of Maya culture. There are often images of cacao plants on Maya buildings and art objects. Only the very wealthy people could afford to drink chocolate because cacao was so valuable, poorer members of society could rarely enjoy the drink.

The explorer Christopher Columbus brought cacao seeds to Spain after his trip to Central America in 1502. The wealthy people of Spain first enjoyed a sweetened version of the chocolate drink. Later, the popularity of the drink spread throughout Europe. The English, Dutch and French began to plant cacao trees in their own colonies. Chocolate remained a drink that only wealthy people could afford until the eighteenth century, when new technologies helped to make chocolate less costly to produce.

Today chocolate is especially popular in Europe and the United States. Each year, Americans eat an average of more than five kilograms of chocolate per person. Shops that sell costly chocolates are also very popular. Many offer chocolate lovers the chance to taste chocolates grown in different areas of the world.

Jane Morris is a chocolate maker in Washington D.C. Here is her opinion on why people like chocolate so much:

JANE MORRIS: "Well, I like to think that people love chocolate because everybody has an experience that they can relate to eating chocolate, and usually it's a good one. It's a memory from childhood or it's eating something that you know you weren't supposed to, but you did it anyway and really enjoyed it. And chocolate marries well with almost any ingredient from any corner of the globe. It really is a perfect food."

Ms. Morris uses chocolate to make her own unusual creations. Her most popular chocolate is called Montezuma. It's a chocolate with chili and Vietnamese cinnamon. You may think it is just a normal chocolate until you begin to taste the deep and rich heat of these special spices.

Jane Morris mainly sells her chocolates in local wine, candy and gift stores. She says she does not use any preservative chemicals in her products, so they only last about two or three weeks. But, she says she believes this is the way chocolate should be eaten. We asked her if there was anything she wanted to tell our listeners. It might not surprise you she suggested that everyone should eat chocolate!