

## Summer School Chichester 2019

In June, Mike and I attended this year's U3A Summer School at Chichester, where we spent several fascinating sessions considering how mathematics relates to elements of our daily environment. For example, interpreting bar codes, how ISBN numbers are created and what they mean, encrypting credit card numbers, and even the calculations involved in deciding how to get a sofa round a corner!

We also discovered Babylonian mathematics, which is the basis of today's measurement system using the unit of 60 for angles (e.g. 360 degrees), hours and minutes, plus co-ordinates of longitude and latitude. We also traced the history and development of calendar systems up to our present day, and how they have been continuously adapted to account for the quarter day in earth's yearly journey around the sun.

Things moved on to deciding the probability that we are (or are not) descendants of Edward III. (How many ancestors might I have had going back 16 generations? Around 8000!)

We then considered snails and the nautilus! We analysed the Fibonacci number sequence evident in the spiral design of their shells, the growth pattern in plants (e.g. the arrangement of sunflower seeds), and also the contribution of the Fibonacci sequence to the "Golden Section" used by artists to create a pleasing composition.

We finished with origami as a practical application of some of the principles we had discovered, resulting in some interesting creations! (See Mike's lovely designs.)



Now, all of the above may sound rather daunting in terms of calculations and any specialist mathematical knowledge necessary. Complicated it definitely was *not*. We did not have to do any calculations (our instructor took care of that side of things); rather, we were able to concentrate on the underlying principles, which was absolutely fascinating.

We finished the course with increased awareness of how numbers are evident everywhere we look, and we had a great deal of fun in the process!

This is my third Summer School. I have traced the history of music, learned to play the ukulele, and this year I deepened my appreciation of the principles of mathematics all around me. By the way, we also attended a play one evening, had a quiz night, and were hilariously entertained on the final night by our visiting speaker, author Judy Theobald. I wonder what next year's Summer School holds for me?

If you are thinking about attending a Summer School next year, look for details on the national U3A website, or subscribe to the U3A magazine. Nearer to home, I would be delighted to answer any questions you might have – talk to me.

Stephie Billington