

My time at The Maths Masterclasses!

Week 1 – Mathletics with Cheryl Dye.

This was the first session so I was feeling quite nervous, especially since I didn't know anyone, as I was the only one that came from my school! But I soon made friends with the people on my table. Firstly we did a starter activity where we had to work out what number different symbols represented. Then we started the mathletics which was working in a team to work out the answers to 20 questions. My group came 4th out of 6. At the end I asked Cheryl how she got involved and she replied by telling me that her son attended the masterclasses a few years ago and she stayed and helped. After that she was invited to be a



speaker.

Week 2 – Excursions into Topology with Maria MacArdle

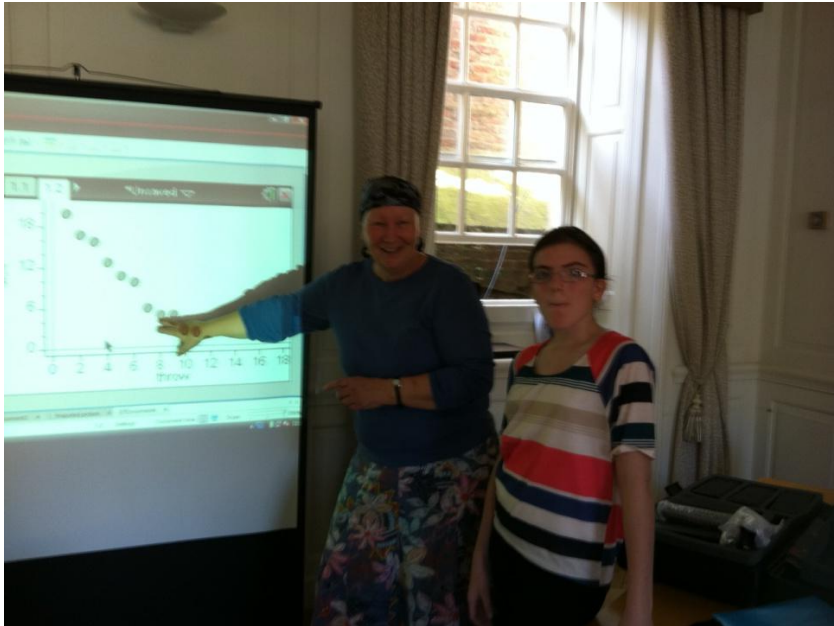
When I got there I had no idea what topology was but I soon learnt. Topology is the twisting and changing of shapes. When the class started we got some strips of paper, put a twist in it and glued it

together. Next we drew a line straight through the middle of the strip. We realised the line continued until it joined the beginning again. We then cut along the line to find out what would happen. After that we experimented with putting the line in different places and adding more twists.



Week 3 – Maths with a graphical calculator with Jenny Orton.

In this session everyone got to use a graphical calculator, we found out we were some of the first people to use them in the country. We found out that they were nothing like normal calculators because they could do so much more. For the session we had fun playing around with them and exploring what they did. At the end we did some things with graphs and adding lines onto a picture.



Week 4 – Digits, Numbers and patterns and anything else that turns up with Dennis Pinshon.

In this week we did lots of work on Pascal Numbers! Which is where each number is the sum of the two above it, it was quite fun and very challenging (in a good way). After that we did an activity about permutations and combinations. This is, for example, taking the numbers 1, 2, 3 & 4 and finding out how many different combinations you can get out of them! We tried doing this but we used arranging the people on our tables into as many orders as possible. I thought that activity was a lot of fun!



Week 5 – Fractal Geometry with Rachael Read

This was the last session and by this one I had made new friends. During this session we did a lot of working out how to make an A4 sheet seem bigger than it was by cutting lines along the sheet so in the end it seemed like a big ring of paper! During the session we watched a video where a lady called Vi Hart was drawing shapes and joining them and putting shapes in shapes! It was very interesting and fun to watch. After we watched it we tried doing one of the things she did which was called an Apollonian Gasket. In this you draw a circle and then fit the biggest circle you can in and so on until the original circle is full of smaller circles. We explored doing this with different shapes too. At the end of the session we went outside and all tried to fit inside a paper ring that someone had made during the lesson. We decided not to do that because we didn't want to break it so we all stood around the outside of it. That was the last session of the maths master classes.

Week 5 - Certificate Receiving!

We all got taken to the lecture theatre where we were all presented with a certificate for coming to the master classes. Although at first I was unsure about coming, by the end I had quite a good time!

