# MANDELBROT

1924 - 2010

Benoit Mandelbrot was born in Poland on 20th November 1924. His mother was a dentist and his father was addicted to maps (the house was full of them), but it was a pair of mathematical uncles that first inspired him. As a child he was fascinated by geometry and was a mean chess player, using mathematical ideas to help him win games.

Because his family were Jewish they – rather understandably – began to feel nervous what with Nazi Germany on the doorstep. Benoit and his family fled to France when he was 11 years old. The Second World War proved a difficult time for him and he ended up teaching himself for much of his time as a teenager. In 1944 he joined the prestigious *École Normale* in Paris (a posh university), but he left after the first day. Thankfully he went on to study elsewhere – and as a result ended up inventing what is probably the most spectacular maths of the 20th century: Fractals.

After some time working with IBM on early computers his work led him to ask a simple question: ‘*How Long is the Coastline of Britain?*’ Oddly, there is no answer to this question. Or, more accurately, there are lots of answers and it all depends how long your ruler is.\* The fractal geometry that resulted from these investigations underpins an astonishing collection of sciences and technologies, from stock markets to archaeology, pathology to computer animation, ship-design to meteorology. And it provides us all with some pretty amazing posters too.

Clearly Benoit was ready to join in with celebrity culture, and at this point he started to describe himself as Benoit B Mandelbrot. The middle ‘B’ stood for nothing really – just like J. K. Rowling and Michael J. Fox. However, if the ‘B’ stands for ‘Benoit B Mandelbrot’, then his name becomes a fractal! (Think about it).

Benoit’s work excited and interested him so much that he did not retire until the age of 82. By this time he had received numerous honours and, in addition to the famous ‘Mandelbrot Set’, even had an asteroid named after him (‘27500 Mandelbrot’ if you are interested in keeping an eye out for it). He died 3 years later on 14th October 2010.