Broccoli

by Mark

WHEN I WAS A CHILD, I USED TO HATE TO HAVE TO EAT MY BROCCOLI. MY MOM WOULD TELL ME THAT I DON'T HAVE TO EAT IT ALL BUT JUST TAKE ONE BITE.

IN MATHEMATICS, FRACTALS SPECIFICALLY, WE SEE THAT A LITTLE BROCCOLI GOES A LONG WAY. THIS DEMONSTRATION SHOWS THE IDEA OF SELF-SIMILARITY. AS WE BREAK OFF MORE AND MORE SMALLER PIECES OF THE FULL HEAD OF BROCCOLI, WE FIND THAT THE PIECES REMAINING LOOK STRIKINGLY SIMILAR, ALMOST IDENTICAL.

THIS IS THE IDEA BEHIND FRACTALS. AS YOU TAKE A SMALLER AND SMALLER IMAGE OF THE SAME OBJECT YOU FIND THAT YOU ARE PRESENTED WITH THE SAME OBJECT ONLY ON A SMALLER SCALE. MUCH THE SAME WAY THAT A CIRCLE IS A SHAPE WITH INFINITELY MANY SIDES, THE FRACTAL HAS INFINITELY MANY LEVELS OF DEPTH.