

## Run this Code

Using a text editor, such as notepad++ or TextWrangler, create a file having a “dot-bl” extension (e.g., *myFile.bl*). Enter the code shown below into the file. Then run your code by double-clicking on the file name/icon with the left mouse button. If all goes well, then you should see the LEGO<sup>®</sup> artifact shown in Figure 1.

```
open Level_4;

val randomBrickFn = generateRandomBrickFn blueScale

(* ===== *)
fun base brick p = put (1,1,1) brick p;

fun sponge f brick delta (x,y,z) =
  (
    f brick (x,y,z);
    f brick (x+delta,y,z);
    f brick (x+delta,y,z+delta);
    f brick (x+delta,y+delta,z)
  );

(* ===== *)
fun winter () =
  let
    fun m0 brick p = sponge base brick          1 p;
    fun m1 brick p = sponge m0 brick            2 p;
    fun m2 brick p = sponge m1 (randomBrickFn()) 4 p;
    fun m3 brick p = sponge m2 brick            8 p;
    fun m4 brick p = sponge m3 brick           16 p;
    fun m5 brick p = sponge m4 brick           32 p;
  in
    m4 BLUE (0,0,0)
  end;

(* ===== *)
build(64,64,64);

winter() ;

show "Winter Sponge";
```



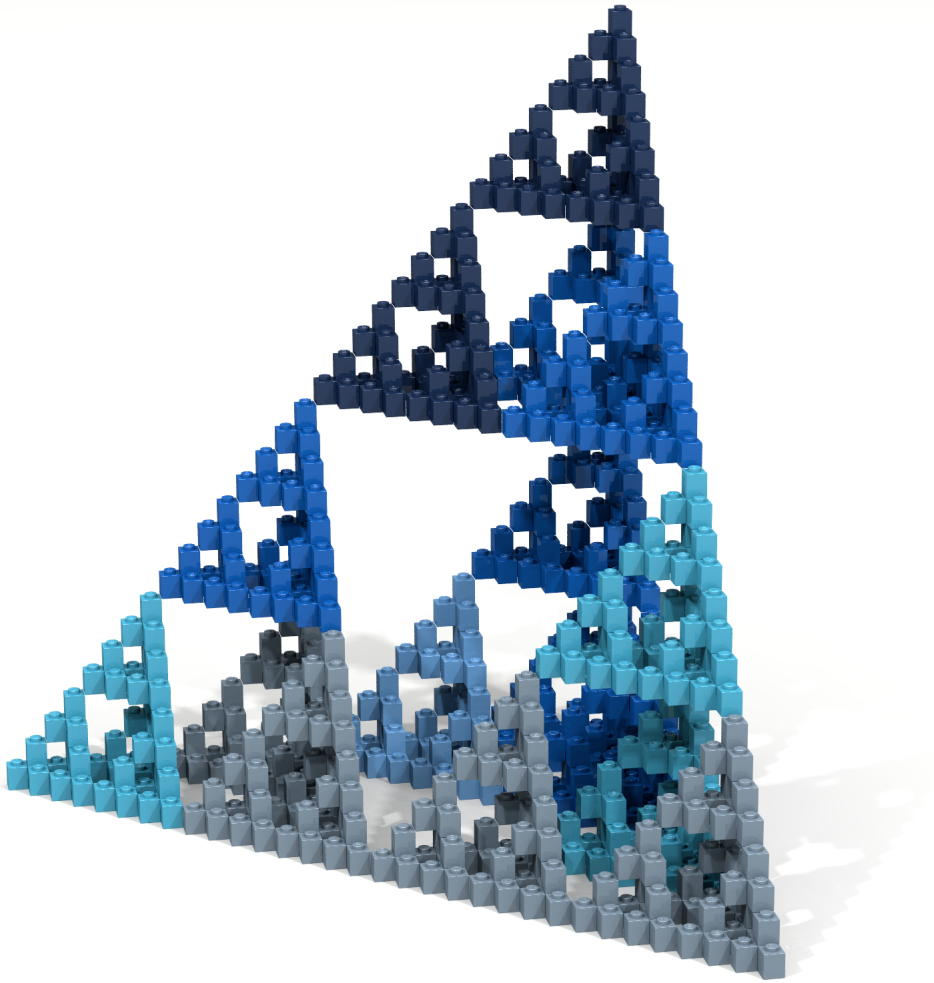


Figure 1: LEGO<sup>®</sup> Artifact