



## Fractals for kids

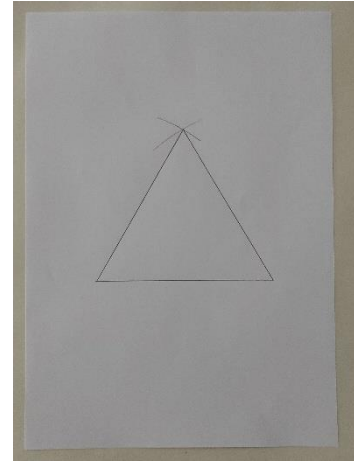
<p>Name of the object and creator</p>	<p>Fractals for kids</p>  <p>Lidija Klobučar, computer science teacher at Lovre pl. Matačića Elementary school</p>				
<p>Recommended ages</p>	<p>10-11</p>				
<p>Thematic areas combined (STEAM)</p>	<p>Sciences</p>	<p>Technology</p>	<p>Engineering</p>	<p>Arts</p>	<p>Mathematics</p>
<p>Materials needed</p>	<ul style="list-style-type: none"> <li>• paper</li> <li>• a ruler</li> <li>• pencil</li> <li>• wooden crayons</li> <li>• divider</li> </ul>				
<p>Outline of the steps</p>	<ol style="list-style-type: none"> <li>1. Drawing triangles and half sides of triangles</li> <li>2. Repeating the drawing steps on smaller parts</li> </ol>				
<p>References</p>	<p><a href="https://www.youtube.com/watch?v=rGwwydEWLiI">https://www.youtube.com/watch?v=rGwwydEWLiI</a></p>				

## STEP BY STEP: How to build a fractal

Step 1: Draw the 1<sup>st</sup> triangle

Estimated time: 1 min

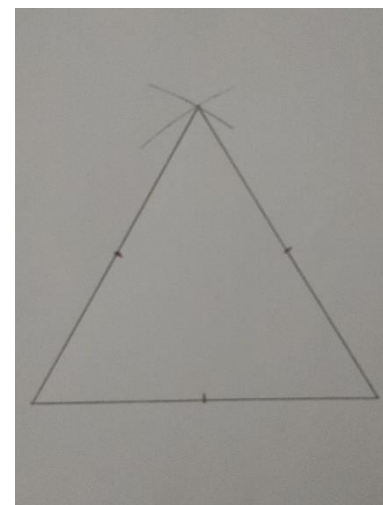
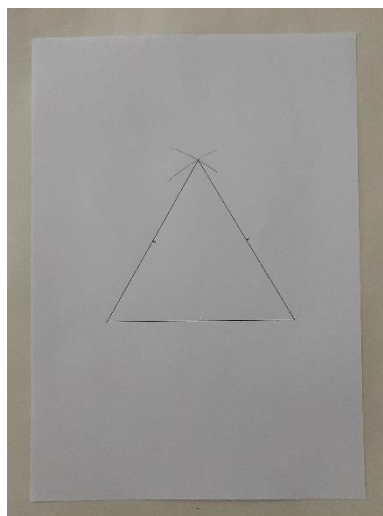
Draw an equilateral triangle.



Step 2: Measure halves

Estimated time: 2 min

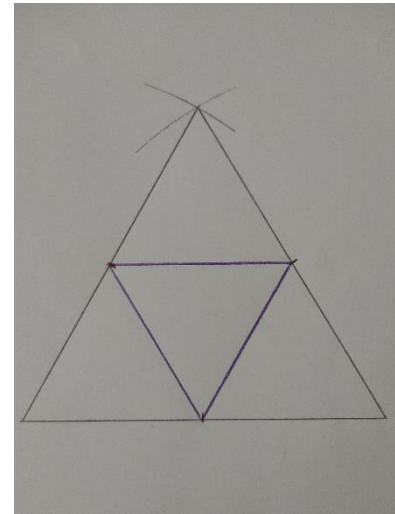
Draw the halves of each side of the triangle.



Step 3: 2<sup>nd</sup> triangle

Estimated time: 1 min

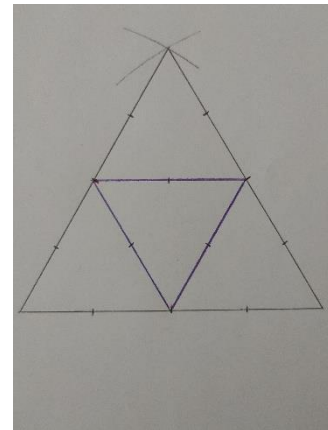
Connect the drawn halves of each side of the triangle into a new triangle.



Step 4: Measurement of halves 2<sup>nd</sup> triangle

Estimated time: 2 min

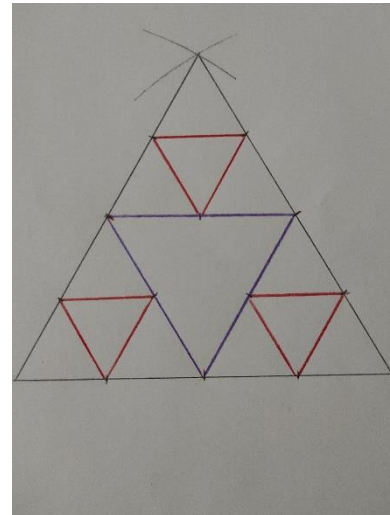
In the resulting triangles, divide all sides in half.



Step 5: 3 new triangles

Estimated time: 5 min

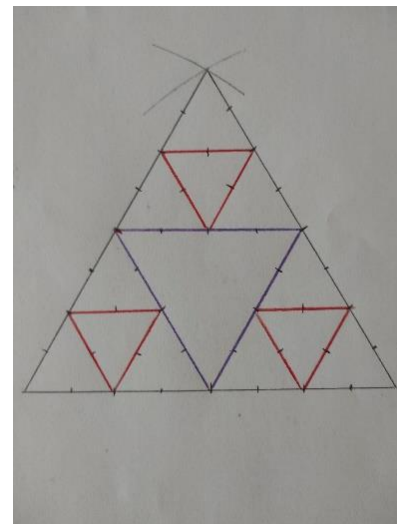
Connect all drawn halves of all triangles into new triangles.



Step 6: More triangles

Estimated time: 5 min

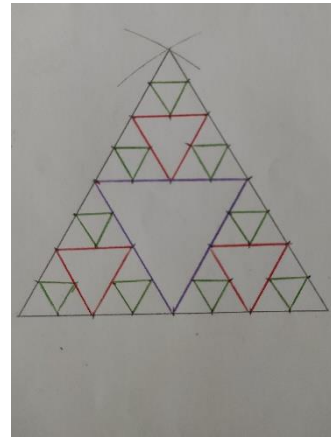
In the resulting triangles, divide all sides in half.



Step 7: Many triangles and more...

Estimated time: 10 min

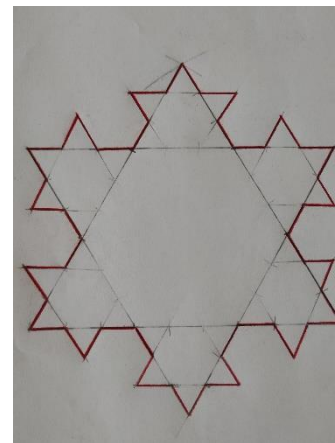
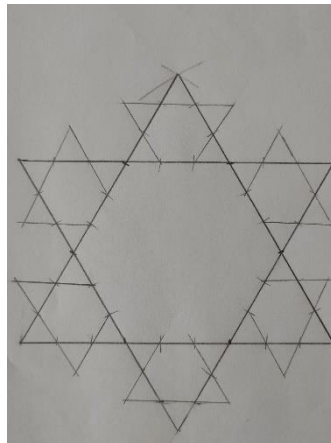
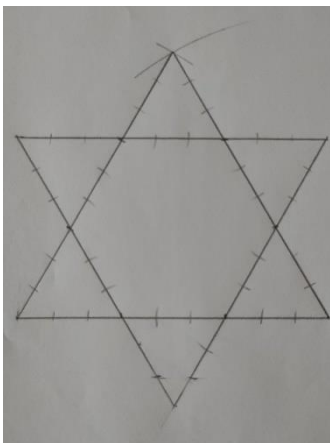
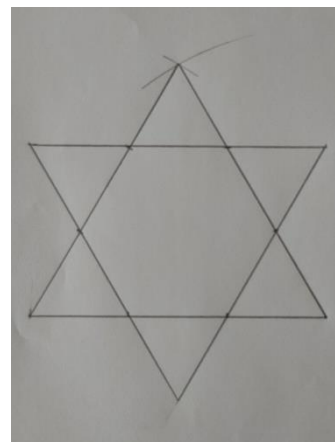
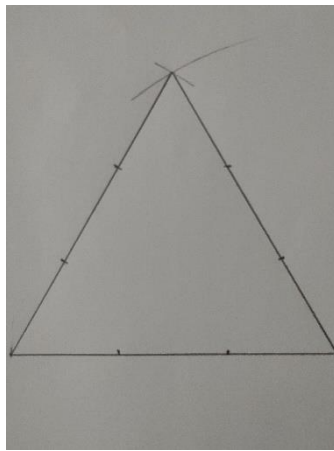
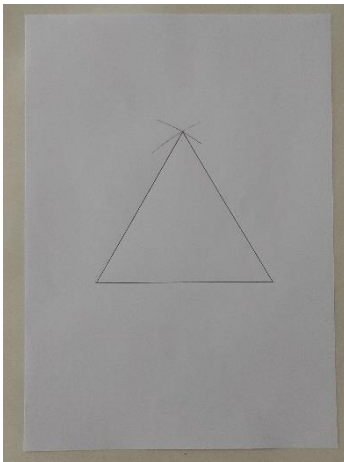
Connect all drawn halves of all triangles into new triangles.



Step 8: Make a Koch snowflake

Estimated time: 30 min

Task: Koch snowflake



## DiSClaimer

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