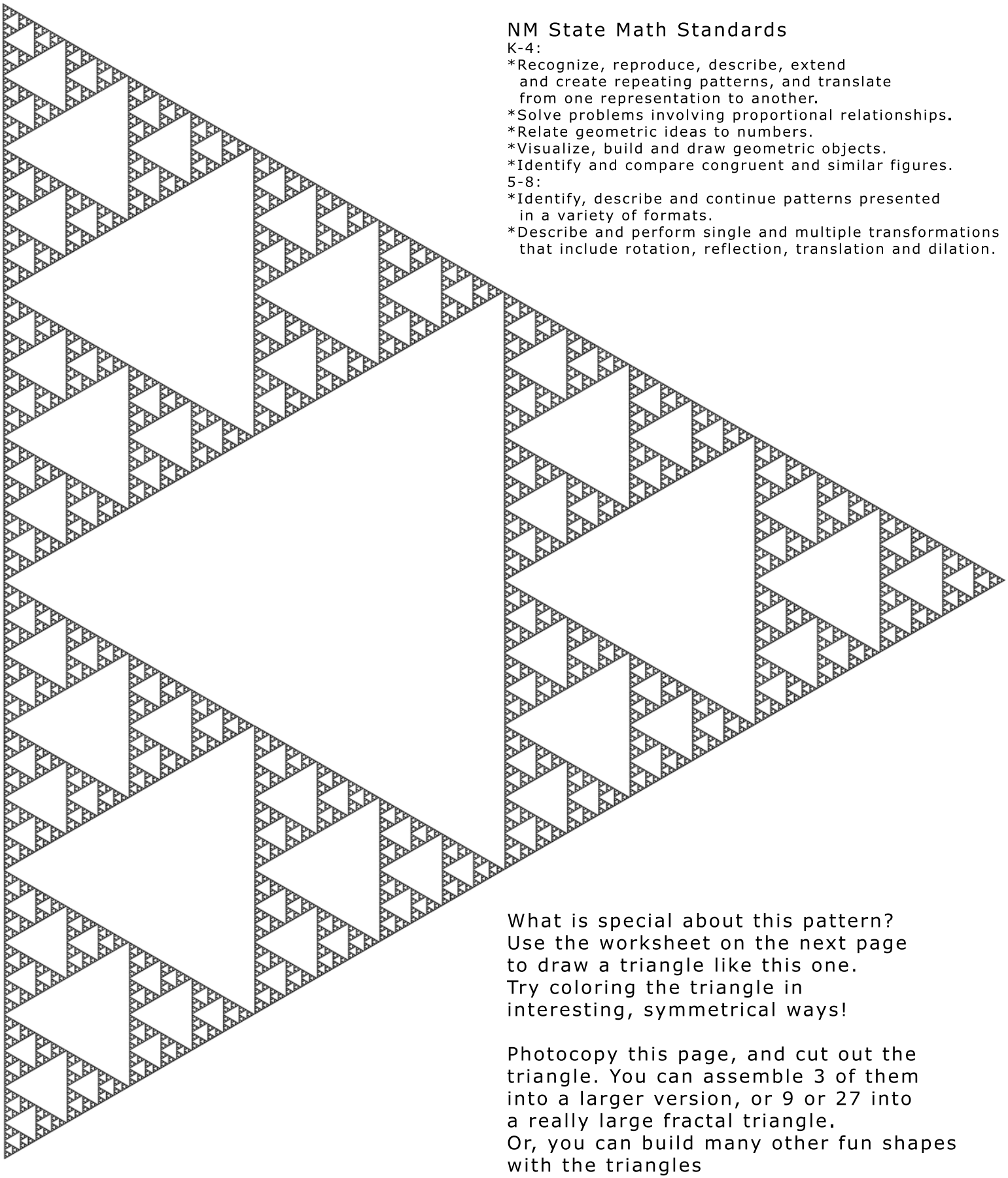
Sierpinski Triangle Fractal



NM State Math Standards

K-4:

*Recognize, reproduce, describe, extend and create repeating patterns, and translate from one representation to another.

*Solve problems involving proportional relationships.

*Relate geometric ideas to numbers.

*Visualize, build and draw geometric objects.

*Identify and compare congruent and similar figures.

5-8:

*Identify, describe and continue patterns presented in a variety of formats.

*Describe and perform single and multiple transformations that include rotation, reflection, translation and dilation.

What is special about this pattern?
Use the worksheet on the next page to draw a triangle like this one.
Try coloring the triangle in interesting, symmetrical ways!

Photocopy this page, and cut out the triangle. You can assemble 3 of them into a larger version, or 9 or 27 into a really large fractal triangle.
Or, you can build many other fun shapes with the triangles

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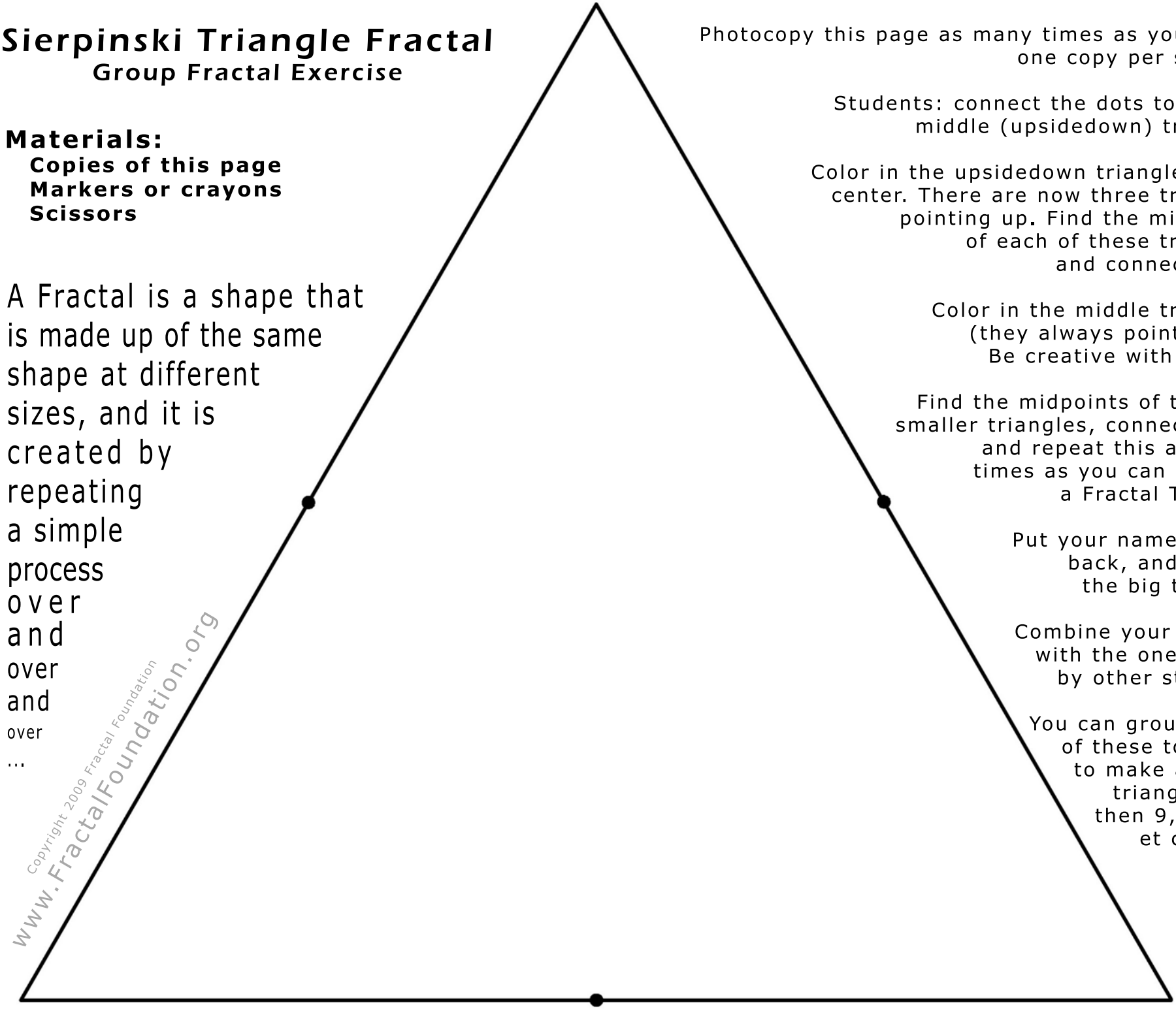
Group Fractal Exercise

Materials:

- **Copies of this page**
- **Markers or crayons**
- **Scissors**

A Fractal is a shape that is made up of the same shape at different sizes, and it is created by repeating a simple process over and over and over ...



Photocopy this page as many times as you need, one copy per student.

Students: connect the dots to form a middle (upsidedown) triangle.

Color in the upsidedown triangle in the center. There are now three triangles pointing up. Find the midpoints of each of these triangles, and connect them.

Color in the middle triangles (they always point down). Be creative with colors!

Find the midpoints of the new smaller triangles, connect them, and repeat this as many times as you can to form a Fractal Triangle.

Put your name on the back, and cut out the big triangle.

Combine your triangle with the ones made by other students.

You can group three of these together to make a bigger triangle, and then 9, 27, 81, et cetera...

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