

Name: \_\_\_\_\_

## Watersheds and Rivers

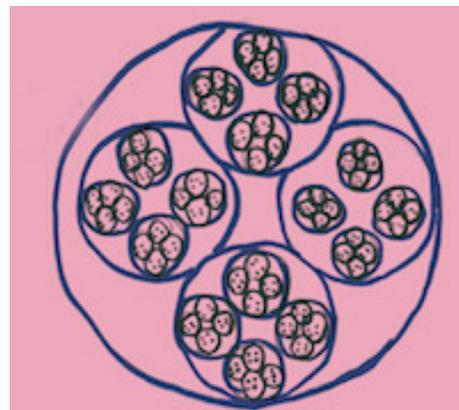
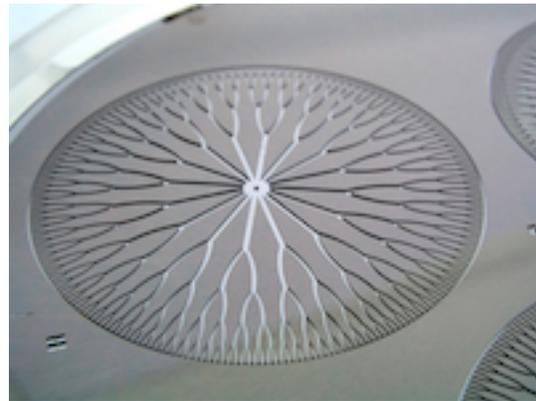
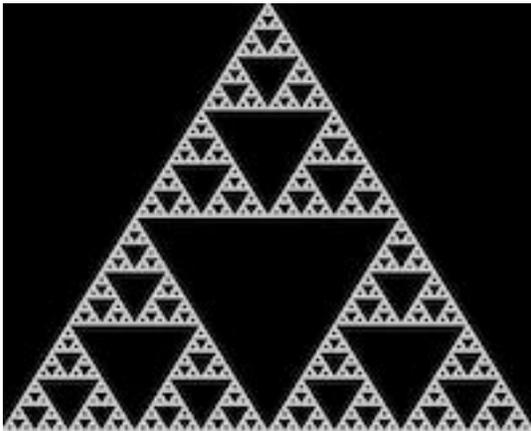
7. Now we are going to have each student or small groups of students (2 or 3 maximum) make their own fractal design with pipe cleaners. Afterwards, we will have a competition to judge who created the best fractal design that covers the most area. Each student gets four whole pipe cleaners, eight half-sized pipe cleaners and 16 quarter-sized pipe cleaners.

Take the next 10 minutes to create your own fractal pattern that would maximize the area covered by pipe cleaners on your desk. Afterwards, the class will judge who or what team created the best design. Use the designs below to help you create your design.

Suggestions on judging the winning design:

Does the pattern exhibit characteristics of a fractal, in repeating a simple design over and over again, getting bigger or smaller?

Does the pattern cover the most large area?



*Fractals are SMART: Science, Math & Art!*

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