



Watersheds and Rivers



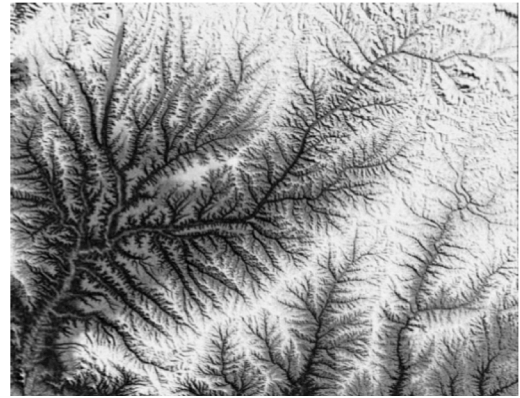
Overview

In this exercise, students learn about fractal rivers, create their own watershed and discover what a watershed is. This activity wraps up with students creating their own fractal design using pipe cleaners.

Appropriate for: grades K – 12, college and adults

Objectives

- To analyze fractal patterns in natural landscapes
- To understand what a watershed is and create one
- To create a map of their created watershed
- To apply creativity in designing a fractal pattern



Materials

- Watersheds and Rivers worksheet
- Pencil
- Two options
 - garbage bag with edges cut so it is one large rectangle and a few students' shoes and/or backpacks or
 - a piece of paper per student and a marker
- Spray bottle with water
- Pipe cleaners – some the original length, some cut in half, some cut quarter length



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Common Core Standards for Mathematics

Code	Standard	Grade	Code	Standard	Grade
OA	Operations and Algebraic Thinking	5	G	Geometry	K – 7
MD	Measurement and Data	3	RP	Ratios and Proportional Relationships	6, 7

Common Core Standards for English Language Arts

Code	Standard	Grades K – 5	Grades 6 – 8	Grades 9 – 12
RL	Reading: Literature	1, 4, 7, 10	1, 4, 7, 10	1, 4, 10
RI	Reading: Informational Text	1, 3, 4, 7, 10	1, 3, 4, 7, 10	1, 3, 4, 10
FS	Foundational Skills	1, 2, 3 for grades K – 1; 3 and 4 for grades 2 – 5	None available	None available
W	Writing	2, 3, 8; 4 for grades 3 – 5	2, 3, 4	2, 3, 4, 9
SL	Speaking and Listening	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6
L	Language	1, 4, 6; 3 for grades 2 – 5	1, 3, 4, 6	1, 3, 4, 6
RST	Science and Technical Subjects	None available	1, 3, 4, 6, 7, 10	2, 3, 4, 6, 7, 10