



Fractal Bingo



Overview

Fractals are all around us in nature such as trees and flowers and also in man-made things such as cracks in the sidewalks, patterns in buildings and signs, etc. In this activity, a class of 20 students at most (you can make more bingo sheets if you want) walks around outdoors, noting fractal patterns all around them. They can be simply outside the classroom on the school property or in a more natural area.

Appropriate for: grades K – 12, college and adults

Objectives

- To observe fractal patterns in natural and man-made environments
- To identify and describe shapes
- To generate and analyze patterns
- To create fractal art
- To attend to precision

Materials

- Bingo worksheets
- Clipboards
- Pen, pencil or marker
- Prizes (optional)



**Fractal
Foundation**

Fractals are SMART: Science, Math & Art

**Nature Walk
BINGO**



1	13	15	6
12	2	3	5
9	7	4	16
8	10	11	14

Instructions

Students are assigned a number 1 through 20 according to the number on the bottom right of the sheet they are given. If there are more than 20 students in a classroom, the teacher can create additional sheets by randomizing the location of numbers in the bingo sheet.

The teacher can proceed from 1 to 20 in this exercise or randomly choose a number from 1 through 20. When called upon, each student identifies a fractal pattern they see and everyone draws that pattern in the square with the associated number.

Proceed until someone reaches bingo or the first three students to reach bingo or even until all students have had their turn. Prizes are optional and fun! It's possible to also award the student with the best drawings, most innovative fractal, etc.