



# MORRIS CENTER

FOR LOWCOUNTRY HERITAGE

**Grade Levels:**

K-12

**Duration:**

10 minutes to introduce the activity

20- 30 minutes for activity

**Materials:**

- Paper (drawing and lined)
- Pencils

**SC State Standards:**

Visual Arts

VA.R NH.5.1, VA.C NL.6

English Language Arts

(I)2.1, 3.1, 3.2 (W) 3.1

**Key Terms:**

fractal

self-similarity

observation/observe

identify

## Find A Fractal Lesson Plan

### Overview

In this study, students will walk around an outdoor space to notice and identify fractals as they occur in nature.

Afterwards, they will orally tell or write about the fractals they observed.

This activity can be done anytime. It works well as a pre-visit activity in connection with *Fractals: Science and Mathematics as Art* on view March 11 - October 14, 2023.

### Learning Objectives

- Students will develop observation skills through noticing nature and fractals.
- Students will be able to identify various items in nature and make a detailed oral or written description of one or more items.
- Student will cultivate communication skills by writing about what they found.



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## Activity

- Introduce the activity to your students.

*What is a fractal?*

*A fractal is an image that has endless "self-similarity." Self-similarity is when an object repetitively displays similar shapes across different scales (how far in or out you zoom visually). They are endlessly complex and endlessly beautiful.*

*We will go outside and look for fractals in nature. Remember, do not to pick up any items, just observe. What can you find on your walk in nature? Stay on the path with your class and when you see a fractal you can write a description or draw it.*

- Return to classroom where student will share a finding/observation either orally or written including details and sensory information. [Depending on the grade level you may want to give students some specific guidelines, such as have younger students write sentences or draw images.]



A tree is an example of a fractal in nature.