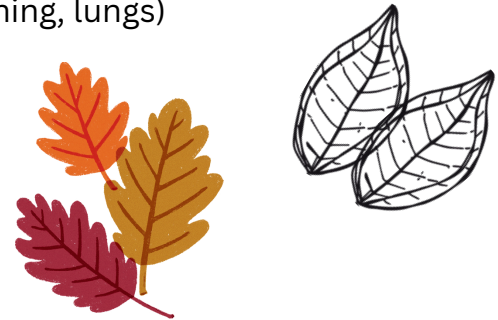


Fractal Branch Walk: Nature's Repeating Patterns

Concept: Fractals — branching patterns that repeat at smaller and smaller scales (trees, leaves, rivers, lightning, lungs)

Materials:

- Small bag or basket
- Optional: phone/tablet for taking photos
- Paper + crayons for a quick sketch afterward



Steps:

1. Head outside together — backyard, park, woods, or even a neighborhood sidewalk.
2. As you walk, invite everyone to look for branching patterns in the environment. Great finds include: fallen twigs, fern-like leaves, bare winter branches, cracks in sidewalks, riverbeds
3. Collect a few small, safe items (fallen only — nothing pulled from a plant). Place them in your basket.
4. At home or at a picnic bench, lay everything out.
5. Look together for the “mini-me” pattern: big branch → smaller branch → tiny branch.

* Kids catch this instantly once they see it.

6. Next, compare your finds with a picture on your phone of:

- lightning
- a river system
- lung bronchi
- leaf veins



7. Ask: Do these look surprisingly alike? Why do so many things “branch”?

8. Let each child choose one item to sketch.

9. Encourage labeling:

- “main branch”
- “smaller branch”
- “tiny branch”



10. End by saying something simple and true:

Fractals are creation's way of repeating a good idea. Big or small, the pattern stays the same.