

School Projects- Science Project Ideas

Project 1: How Much Water Does a Tree Save?

o **Objective:** Compare the water needs of indigenous vs exotic tree species.

o **Steps:**

- i. Choose two potted seedlings, one indigenous (e.g., Moringa), one exotic (e.g., eucalyptus).
- ii. Water each with the same amount daily.
- iii. Measure how much water drains out and how long the soil stays moist.

o **Learning:** Indigenous trees retain more moisture and use less water which is great for drought-prone areas.

Project 2. Decomposition Race: Tree Leaf Breakdown

o **Objective:** Test how fast different tree leaves decompose in soil.

o **Steps:**

- i. Collect dry leaves from 3 different indigenous trees.
- ii. Bury equal amounts in labelled containers with moist soil.
- iii. Check weekly for breakdown over 4–6 weeks.

o **Learning:** Some leaves break down faster and enrich soil more quickly.

Project 3. Can Trees Lower Temperatures?

o **Objective:** Test whether areas with trees are cooler than bare areas.

o **Steps:**

- i. Measure surface temperatures under a tree, beside it, and in open sun at the same time each day.
- ii. Use a thermometer or infrared temperature gun (if available).
- iii. Record for 1–2 weeks.

o **Learning:** Tree cover reduces local temperature which is important for urban climate resilience.



School Projects- Science Project Ideas

Project 4. CO₂ Absorption Demonstration

o **Objective:** Show how trees absorb carbon dioxide.

o **Steps:**

- i. Use a sealed plant chamber (plastic bottle or container).
- ii. Place a seedling inside and expose to light.
- iii. Use CO₂ indicator (like limewater) to show reduction over time.

o **Learning:** Trees are natural carbon filters. Indigenous trees store carbon long-term.

Project 5. Do Tree Roots Help Soil Hold Water?

o **Objective:** Demonstrate how roots reduce erosion and help water absorption.

o **Steps:**

- i. Use two clear containers: one with bare soil, one with a rooted seedling.
- ii. Pour equal amounts of water over both.
- iii. Observe drainage and erosion patterns.

o **Learning:** Roots from trees prevent runoff and help refill underground water.

