45-Minute Bilingual Schoolyard Carbon Lab — Teacher Packet

Grades 7–12 · Open Browser Access · education@rootedcarbon.com

Complete lesson plan for running a hands-on English or French forest-carbon measurement lab in a single 45-minute class period using everyday phones or tablets.

Lesson Flow (45 Minutes)

- 00–10 min · Classroom Brief: Introduce trunk diameter (DBH), wood density, dry biomass (AGB), and how living trees store atmospheric carbon.
- 10–30 min · Schoolyard Field Pairings: Students pair up with one cloth measuring tape (manual DBH) and one smartphone or tablet running rootedcarbon.com/calculator.
- 30–45 min · Data Debrief & CSV Export: Compare manual tape measurements against optical outputs, examine ±% confidence bounds, and export a teacher-owned class CSV.

Student Privacy & Classroom Readiness

- Opens directly in any modern school browser—no student logins, accounts, or app downloads needed.
- Private identifying details are stripped before transfer, zero photos are stored by Rooted Carbon, and session results clear cleanly on browser refresh.
- Available natively in Canadian French and English for Immersion, Francophone, and IB classrooms.

Materials & Support

- Required: 1 smartphone or tablet per pair, 1 cloth measuring tape, and access to 3–5 schoolyard or park trees.
- Book a bilingual guest workshop or request classroom datasets: education@rootedcarbon.com

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