

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Team members: \_\_\_\_\_

## LAB 1B: Student Data Worksheet - How Much Carbon is Stored in a Local Tree?

TREE species name: \_\_\_\_\_

TREE common name: \_\_\_\_\_

Hardwood or Softwood: \_\_\_\_\_

Observations of your tree and its environment.

### DATA and CALCULATIONS:

Circumference of tree: \_\_\_\_\_(cm)

Diameter(D) of tree: \_\_\_\_\_(cm) *To calculate diameter, divide the circumference by 3.14(Pi)*

Allometric coefficients for your species of tree:

“a” coefficient \_\_\_\_\_ “b” coefficient \_\_\_\_\_

Biomass(M): \_\_\_\_\_(kg) Use formula  $M = aD^b$

**Mass of carbon stored** \_\_\_\_\_(kg)

*Multiply total tree biomass (M) \* 0.521 for mass of carbon in hardwood trees:*

\_\_\_\_\_(kg)

*Or:*

*Multiply total tree biomass (M) \* 0.498 for mass of carbon in softwood trees:*

\_\_\_\_\_(kg)

**Amount of carbon dioxide (CO<sub>2</sub>) absorbed from air to create the mass of carbon stored in tree:**

\_\_\_\_\_kg    *Multiply mass of carbon stored(kg) by 3.67*

**Optional:**

**Amount of tree carbon(kg) =** \_\_\_\_\_**metric tons** (*1 metric ton = 1000 kg*)

**This is equivalent to** \_\_\_\_\_ **(lbs) of carbon** (*1 metric ton = 2,205 lbs*)

**NOTES:**