Measuring carbon storage in trees

By Daisy Levett (@MissLevettTAA), Head of Geography, The Thomas Alleyne Academy

## Circumference and dry weight conversion table

|  |  |
| --- | --- |
| Circumference in cm | Dry weight in kg |
| 1.5 | 0.009 |
| 2.5 | 0.04 |
| 5 | 0.23 |
| 10 | 1.4 |
| 20 | 9 |
| 30 | 27 |
| 40 | 82 |
| 50 | 106 |
| 75 | 310 |
| 100 | 668 |
| 125 | 1208 |
| 150 | 1964 |
| 175 | 3253 |
| 200 | 4221 |
| 225 | 5771 |
| 250 | 7641 |
| 275 | 9842 |
| 300 | 12410 |
| 325 | 15350 |
| 350 | 18700 |
| 400 | 26674 |

Use the circumference measurement in the table which is closest to your measurement. Approximately half of the dry weight is carbon. Divide the dry weight by two and this will tell you how many kilograms of carbon are stored in the tree.

## Growth rates

|  |  |
| --- | --- |
| Type of tree | Growth rate |
| Holly, Yew | 1.25cm per year |
| Oak | 1.88cm per year |
| Ash, Beech, Hazel, Elm | 2.5cm per year |
| Sycamore | 2.75cm per year |
| Pine, Spruce | 3.13cm per year |