

Paul Decker

Wednesday, October 17, 2012

FOR 4974

SoL LS.5 parts a, b and c; LS.10 part c; LS 6.9 parts c and d

Activity Outline – “Counting the Carbon”

- I. Introduction to climate change and forestry: What’s the relationship? – **10 minutes total**
 - A. PINEMAP and what my role is for today and in school – **5 minutes**
 - i. Student at Virginia Tech
 - ii. Worked at the University of Florida
 - iii. Project Learning Tree activities
 - B. Carbon sequestration and photosynthesis: What is it? – **5 minutes**
 - i. Autotrophic processes
 - ii. CO₂ is the food for plants
 - iii. Write the three equations
 - iv. Carbon storage vs. carbon sequestration
 - C. What is climate change? – **5 minutes**
 - i. CO₂ emissions and their effect on the global carbon budget
 - ii. What role do the trees have?

- II. Game plan for the day – **30 minutes total**
 - A. Carbon measurement in a tree – **20 minutes**
 - i. Clinometer and trigonometry of measuring trees
 - ii. What does this carbon mean? How long is it stored?
 - B. How much area does your state need to sequester the emitted carbon? – **10 minutes**
 - i. Give out worksheet for students

- III. Conclusion and wrap-up – **10 minutes total**
 - A. What can you do to change your lifestyle? – **2 minutes or less**
 - B. Can there be more forests? – **6 minutes**
 - i. Yes, but what about the land-use changes.
 - C. Carbon calculator for yourself – **2 minutes**
 - i. EPA.org
 - ii. The Nature Conservancy

Total: 50 minutes