Middle-level CTE Learning Experience Title: Measuring Tree Age
Educator: Zak Messenger-Harris M-

skills to construction of physical shape

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Area_Circumference.html

	the Stick Method to the photographs from the tree walk.	height of the tree	
	Teacher checks students' estimates Tree Growth Rate by Species: https://www.arborday.org/trees/treeGuide/growth.cfm	Students post the name of the tree and the tree's height next to their leaf and photo	5 min
	Day 4-
Teacher takes students back outdoors to the trees they have marked with surveyor's tape. Teacher demonstrates how students will measure the breast height circumference (DBH), in inches, using a tape measure. | Day 4-
Students go back to the tree they have marked with surveyor's tape.

Students measure the breast height circumference of their trees, in inches, using a tape measure. | 40 min
35 min |
| | Instruments for Measuring Tree Diameter https://openoregon.pressbooks.pub/forestmeasurements/chapter/3-3-instruments-for-measuring-tree-diameter/ | Students post the circumference of their trees next to their leaf and photo | 5min |
| | Day 5-
Teacher provides students with a link for Tree Age Calculator by species:

Teacher demonstrates use of the calculator.
Tree Age Calculator 1: http://www.tree-guide.com/tree-age-calculator
Tree Age Calculator 2: https://goodcalculators.com/tree-age-calculator/ | Day 5-
Students calculate the age of their trees and post the age next to their leaf. | 40min total
10 min |

Teacher asks: How does the age of the tree compare to the height of the tree?
Which tree in our group was the oldest? youngest?
Which tree in our group was tallest?

Exit ticket: Make a summary statement about what we have learned about the relationship of tree age and height.

Day 6-
Teacher shares excerpts from "What is a Tree Worth? by Jill Jones
https://bcc-cuny.digication.com/yn159/What_is_a_Tree_Worth_by_Jill_Jones

Day 7 and 8-
Teacher provides a scenario about a community decision to replace a wooded lot with a paved parking lot. Students write a persuasive essay to the Town Planning Board promoting the contributions of the live trees to the aesthetics, health,

Manages Personal Finances	Consistently manages budgeting habits within resources, uses personal financial tools and services effectively.	Manages budgeting habits within resources, uses personal financial tools and services effectively.	Is conscious of personal budgeting but occasionally exceeds resources.	Spends personal resources carelessly.
Analyzes Critical Information	Thoroughly evaluates the reliability of the source and the information researched using internal and external validation.	Thoroughly evaluates information researched using internal and external validation.	Evaluates information researched but not thoroughly.	Does not evaluate information.
Uses System Thinking	Recognizes and manipulates parts of a system to come together to accomplish tasks.	Recognizes how the parts of a system work together to accomplish tasks.	Identifies the parts of a system but cannot explain how they work together.	Is able to identify only some system parts and loses sight of how they work together.
Contributes to Well-being of Community	Is a strong advocate for the community and always acts in a manner that benefits the community.	Understands responsibility of the individual to the community and acts in a manner that benefits the community.	Usually considers the well-being of the community even if occasionally acts in self-interest.	Favors self-interest over the well-being of the community.
Demonstrates Understanding of the System and Environment Influencing the Organization	Consistently acknowledges the economic, political, and social relationships that impact multiple levels of an organization and uses this knowledge in interactions within the group (e.g., local, national, international).	Acknowledges the economic, political, and social relationships that impact multiple levels of an organization (e.g., local, national, international).	Acknowledges some social relationships that impact multiple levels of an organization.	Does not acknowledge social relationships that impact multiple levels of an organizah