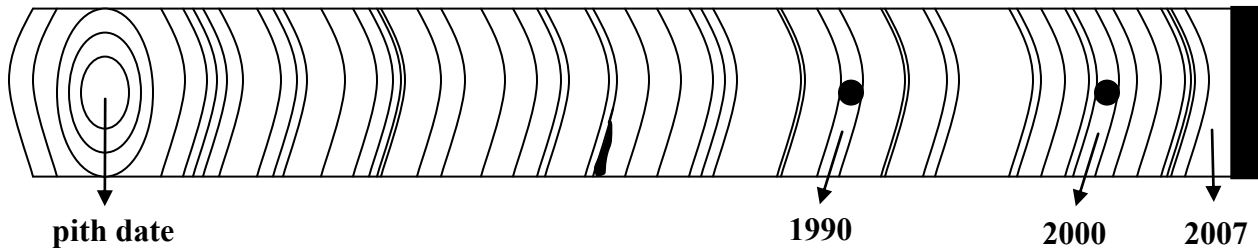


Tree-Ring Activity

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in the University of Tennessee GK-12 Earth Project

Objective: Tree rings contain up to 10,000 years of annual information about climate, fire history, insect outbreaks, glacial movement, and other disturbances. Examine the 50 years of tree-ring information below and see what patterns you can find!

Methods: Count the tree rings backwards from the bark (2007) to find the pith date (when the tree started growing). Mark every decade with a dot (hint: the years 2000 and 1990 have already been marked for you). **The tree rings are the white spaces between the lines!!** Think about what might cause variation in the tree-ring width.



1. What is the inner date (pith date) of the tree core? _____
2. List the years of 5 of the narrowest rings. _____
3. List two reasons why a tree ring would be narrow. _____
4. Which year is there a visible scar in the tree core? _____
5. List two reasons why a tree core would have a scar. _____
6. Compare the precipitation record on the next page with the tree core and answer the following questions:
 - A. Which year had the least amount of precipitation? _____
 - B. Examine the tree ring for that year...is it narrow or wide? _____
7. What might be one reason you would want to study tree rings in Tennessee or other areas? Write three sentences about how tree rings can be used to study the environment.

Climate Data 1950–2007

Year	Precipitation (cm)
1950	14.4
1951	15.4
1952	13.8
1953	12.6
1954	12.1
1955	16.5
1956	11.6
1957	15.1
1958	14.5
1959	15.4
1960	11.9
1961	14.3
1962	16.5
1963	16.5
1964	16.8
1965	15.5
1966	11.4
1967	19.1
1968	17.2
1969	17.1
1970	17.9
1971	15.4
1972	14.8
1973	16.2
1974	11.9
1975	20.4
1976	16.5
1977	16.9
1978	15.8
1979	11.7

Year	Precipitation (cm)
1980	19.1
1981	17.6
1982	18.7
1983	18.6
1984	16.3
1985	14.9
1986	16.2
1987	15.2
1988	11.9
1989	15.1
1990	13.5
1991	16.1
1992	15.6
1993	20.3
1994	14.3
1995	19.5
1996	13.7
1997	18.2
1998	15.6
1999	10.9
2000	12.9
2001	14.4
2002	16.7
2003	12.2
2004	9.7
2005	11.7
2006	15.0
2007	Data incomplete