

*"Everything has a natural explanation.
The moon is not a god, but a great rock, and the sun a hot rock." - Anaxagoras.*

The Sunspot Cycle

Galileo Galilee was the first person to observe sunspots with a telescope over four hundred years ago. And for nearly three hundred years humans have systematically studied those dark patches on the surface of the sun observing and recording their sizes and the frequency of sunspot activity. Your task is to determine what pattern, if any, can be observed in the sunspot data.

PROCEDURE: The table gives the average number of sunspots for the years 1950 to 2000. Graph the number of sunspots per year versus the years of spot observation. After you are done graphing look for any patterns in the data. Answer the questions below.

ANNUAL MEANS OF SUNSPOT NUMBERS, 1950-2000

<u>Year</u>	<u>Sunspot #</u>	<u>Year</u>	<u>Sunspot #</u>	<u>Year</u>	<u>Sunspot #</u>
1950	83.9	1967	146.4	1984	10.1
1951	69.3	1968	130.6	1985	45.8
1952	31.5	1969	100.5	1986	99.9
1953	13.9	1970	77.9	1987	194.0
1954	4.4	1971	53.8	1988	188.7
1955	38.0	1972	21.0	1989	166.2
1956	141.7	1973	19.9	1990	105.6
1957	189.9	1974	5.3	1991	84.0
1958	184.6	1975	78.4	1992	62.4
1959	158.8	1976	148.2	1993	37.0
1960	112.3	1977	184.4	1994	13.6
1961	53.9	1978	157.9	1995	11.0
1962	32.6	1979	133.1	1996	33.2
1963	27.9	1980	109.3	1997	92.6
1964	3.1	1981	92.7	1998	136.2
1965	33.5	1982	60.8	1999	151.5
1966	47.9	1983	27.7	2000	129.2

ANSWER THE FOLLOWING QUESTIONS !!!

How many years does it take on average to go from peak to peak, and low to low?

How do you know when a complete cycle has occurred? How long does that take?

In what stage is the sunspot cycle for this school year?

In what year will we expect the next sun spot low?

In what stage will the cycle be in when you turn 21?