Fibonacci Series In Nature:

Examples of the Fibonacci series in Nature:

http://britton.disted.camosun.bc.ca/fibslide/jbfibslide.htm

If we take the ratio of two successive numbers in Fibonacci's series, (1, 1, 2, 3, 5, 8, 13, etc.) and we divide each by the number before it, we will find the following series of numbers:

\[
\frac{1}{1} = 1, \quad \frac{2}{1} = 2, \quad \frac{3}{2} = 1.5, \quad \frac{5}{3} = 1.666..., \quad \frac{8}{5} = 1.6, \quad \frac{13}{8} = 1.625, \quad \frac{21}{13} = 1.61538... 
\]

It is easier to see what is happening if we plot the ratios on a graph:

The ratio seems to be settling down to a particular value, which we call the golden ratio or the golden number. It has a value of approximately 1.618034.

The golden ratio 1.618034 is also called the golden section or the golden mean or just the golden number. It is often represented by a Greek letter Phi \( \Phi \). The closely related value which we write as phi with a small "p" is just the decimal part of Phi, namely 0.618034.

Source: http://www.maths.surrey.ac.uk/hosted-sites/R.Knott/Fibonacci/fibnat.html

A good link for an explanation of the Fibonacci Series in Nature and Art:
http://library.thinkquest.org/27890/theSeries1.html

Discussion of the Golden Rectangle:
http://library.thinkquest.org/27890/goldenRatio1.html
Leonardo da Vinci’s *Mona Lisa*  
a.k.a. “La Giaconda” c. 1503–1506  
77 cm × 53 cm, Oil on Poplar  
Musée du Louvre, Paris

Leonardo da Vinci’s *Vetruvian Man* c. 1487  
34.4 cm × 25.5 cm  
Pen and ink on paper  
’Accademia, Venice

Source: http://library.thinkquest.org/27890/applications6.html