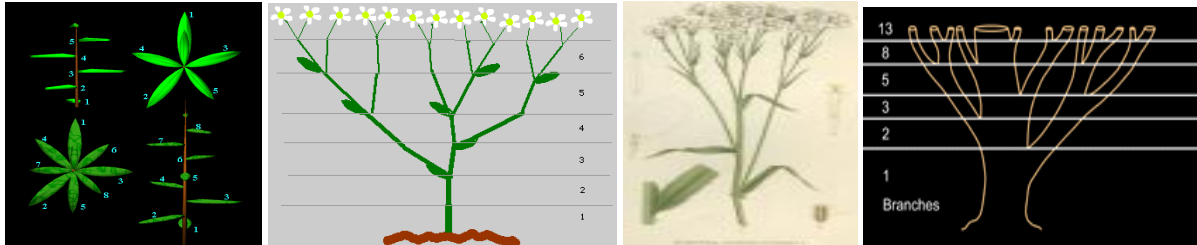




Plants show the Fibonacci numbers in the arrangements of their leaves (Internet access,15). Three clockwise rotations, passing five leaves two counter-clockwise rotations. Sneezewort (*Achillea ptarmica*) also follows the Fibonacci numbers.



Schematic diagram (Sneezewort)

Why do these arrangements occur? In the case of leaf arrangement, or phyllotaxis, some of the cases may be related to maximizing the space for each leaf, or the average amount of light falling on each one.



These pictures are very common to us. We can see the flowers and the patterns of leaves just out of single step of our house. All of these follow the Fibonacci numbers.

2.2 Fibonacci spiral

The Fibonacci numbers are found in the arrangement of seeds on flower heads (Internet access, 13). There are 55 spirals spiraling outwards and 34 spirals spiraling inwards in most daisy or sunflower blossoms (Internet access,14). Pinecones clearly show the Fibonacci spirals (Howard, 2004)



Fibonacci spiral can be found in cauliflower. The Fibonacci numbers can also be found in Pineapples and Bananas (Lin and Peng). Bananas have 3 or 5 flat sides and Pineapple scales have Fibonacci spirals in sets of 8, 13, and 21. Inside the fruit of many plants we can observe the presence of Fibonacci order.

also provided in this model. Let us finish by the words of Leonardo da Vinci “Learn how to see, Realize that everything connects to everything else”.

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