## Fibonacci's Math

## Activity 3 - Fibonacci Numbers in Nature



There are many examples of Fibonacci numbers that can be found all around us! From forests to gardens to supermarkets, Fibonacci numbers are a force of nature! Take for example...

The total number of clockwise spirals on a sunflower head is 55. As well, the number of counter clockwise spirals on a sunflower head is 34 . Pineapples also have eight seeds arranged in clockwise spiral order, and the number of seeds in a pineapple is 13 in a counter clockwise spiral.

If you still doubt that nature knows its mathematics, then count the number of branches on the tree shown in the diagram on the following page:

- Start counting from the bottom at the line numbered 1 . How many branches are there at level 1 ?
- How many branches are there at level 2?
- What about level 3?
- How many branches does the tree have at level 4?
- Continue counting branches until level 9. Record your findings and finish filling in the table.
- How many branches is the tree going to have at level 11? How did you find that?

| Level \# | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Number of <br> Branches |  |  |  |  |  |  |  |  |  |

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Activity 3 - Fibonacci Numbers in Nature - continued


Can you believe THIS is math?

