Title of Book: Math Curse

 Author: Jon Scieszka; illustrated by Lane Smith

 Publisher: Viking Press (1995)

ISBN: 0670861944

Grade Levels for Recommended Use: 3-8

TEKS: 3(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:

(E) represent real-world relationships using number pairs in a table and verbal descriptions.

Brief Summary: When the teacher tells her class that they can think of almost everything as a math problem, one student acquires a math anxiety which becomes a real curse.

Materials needed:

Art Paper or legal size paper, rulers, and pencils

**Suggested Activity*:*

Read the book up to page where "Mrs. Fibonacci says there are many ways to count."   Have students give the next three numbers in the Fibonacci sequence.

Fibonacci Rectangles and Shell Spirals
Use the website to show the animated version:

http://www.maths.surrey.ac.uk/hosted-sites/R.Knott/Fibonacci/fibnat.html
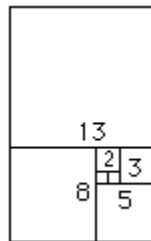
1. Make a picture showing the Fibonacci numbers 1,1,2,3,5,8,13,21,..
2. Turn paper lengthwise. Measure a square on the bottom right: 5 by 5.
3. Start with two small squares of size 1 next to each other on the top left of the 5 by 5 square.
4. On top of both of these draw a square of size 2 (=1+1).
5. Now draw a new square - touching both a unit square and the latest square of side 2 - so having sides 3 units long; and then another touching both the 2-square and the 3-square (which has sides of 5 units).
6. Continue adding squares around the picture, **each new square having a side which is as long as the sum of the latest two square's sides**. This set of rectangles whose sides are two successive Fibonacci numbers in length and which are composed of squares with sides which are Fibonacci numbers, are called the **Fibonacci Rectangles**.
7. Starting with the "right" 1 by 1 square, draw a spiral in the squares, a quarter of a circle in each square. The spiral is not a *true* mathematical spiral (since it is made up of fragments which are parts of circles and does not go on getting smaller and smaller) but it is a good approximation to a kind of spiral that does appear often in nature. Such spirals are seen in the shape of shells of snails and sea shells.

References and or websites:

The Fibonacci Numbers and Golden Section in Nature. Retrieved from:
http://www.maths.surrey.ac.uk/hosted-sites/R.Knott/Fibonacci/fibnat.html

Math is Fun. Fibonacci Sequence. Retrieved from:
http://www.mathsisfun.com/numbers/fibonacci-sequence.html

Adapted by (Dr. Faye Bruun, 2014)