(3.) At the end of the second month, the female has produced a second pair, so two pairs exist. (2)

(4.) At the end of the third month, the original female has produced another pair, and now three pairs exist. (3)

(5.) At the end of the fourth month, the original female has produced yet another pair, and the female born two months earlier has produced her first pair, making a total of five pairs. (5)

3. Write the pattern that has emerged in step 2 on the board:

   1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233...

   Discuss the sequence: Help students understand that to get the next number in the sequence, you add the previous two numbers. This is the Fibonacci sequence. The term that mathematicians use for the type of rule followed to obtain the numbers in the sequence is algorithm. As a class, continue the sequence for the next few numbers.

4. Tell students that the Fibonacci sequence has intrigued mathematicians for centuries. What's more, mathematicians have noticed that these numbers appear in many patterns in nature, often creating the beauty. Tell students that they are going to look for Fibonacci numbers in objects from nature. Make sure that students understand that they are looking for specific numbers that appear in the sequence, not for the entire sequence.

5. Divide students into groups of three or four. Show the following diagram of a seed head from a sunflower plant. Tell students to look for Fibonacci numbers; make sure a list of the numbers is on the board. For more information, go to
   http://www.mcs.surrey.ac.uk/Personal/R.Knott/Fibonacci/fibnat.html