Maths Vocabulary:

- sum (the total of the numbers added together)
- product: The total when numbers are multiplied together
- squared numbers means a number multiplied by itself – the square of 6 is 6x6+36

Leornado Fibonacci (1170-1230) was an Italian Mathematician who was famous for investigating this sequence.

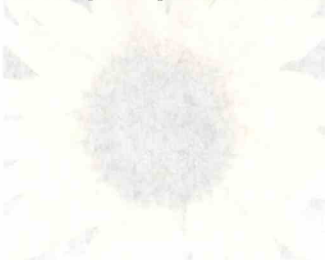**1   1   2   3   5   8   13   21   34   55   89   144 ...**

1. What is the pattern?

2. Continue the pattern for 10 more numbers.

3. Investigate the following patterns (the sum means the total when the numbers are added together). Are they true?

The sum of the first 3 numbers is one less than the 5th.

The sum of the first 4 numbers is one less than the 6th.
The sum of the first 5 numbers is one less than the 7th.

Can you notice a pattern?
What do you notice?

4. Choose a number from the sequence and find the product (this means multiply them) of the numbers on either side of it.
Eg. 89: 55x144=7920
Now find the square of your number. E.g. 89x89=7921

Try 5 more numbers, showing your working out.
What do you notice?
Do you always get the same sort of answer?