

THERE ARE A BILLION REASONS WHY YOU CAN'T COUNT TO A BILLION

Most meteorites that we study are well over 4 billion years old. Billions are such large numbers that we can't even count to 1 billion. If you started counting on the day you were born, and your full-time job in life was to count out loud by saying one number each and every second,* you could count to:

60 (seconds and numbers) in 1 minute
3,600 seconds in 1 hour
28,800 total in a regular 8-hour work day
144,000 in a traditional 5-day, 40-hour work week
7,200,000 within a 50-week, average work year

Wow! When you add it up, in just the first year you would have already counted to a grand total of **seven million, two hundred thousand**; which sounds like a pretty good start, until you subtract that number from a billion and look at the difference! That's how much more you'd still have left to count.

If you lived to be 100 years old and could maintain the same pace of counting, year after year without fail; never got sick and missed work, or took a day off to go to the beach in the middle of the week, by doing a little multiplication you'd calculate that you can count to **720,000,000**.

But, **Seven hundred and twenty million** is not even three-quarters of the way up to one billion. The meteorites that you hold in your hands, during a *Space Rocks* workshop, are more than four times older than one billion. They were already old when Earth rocks, that we find all around, were young.**

Why would meteorites be older than Earth rocks?

**In reality, when you begin counting you won't actually need one second to say each of the single numbers, however by the time you're counting four-digit numbers you'll be using a full second for each. To count huge numbers in the hundreds of millions, it will require longer than a second to say each. Therefore, our time estimate for counting to a billion is actually very conservative. You can check the timing for yourself by looking at your watch as you say a one-digit number, four-digit number, six-digit number, all the way up to 999,999,999.*

***The oldest Earth rocks, found so far, are about 4 billion years old, while most meteorites are generally estimated at 4.5 billion years old; that's an age difference of more than five hundred million years. You could count to five hundred million, if you spent your entire life counting.*