Looking at Sand on a Lake Huron Beach with a \$20 Microscope

by Bill Resch, USA

Eight years ago while swimming in Lake Huron at Tawas Point, Michigan, I noticed these interesting looking colors of the sand:



I took a sample of each, the greenish, reddish and black looking sand, I looked at it with a microscope and took pictures with a microscope camera, but the result was very disappointing. Many years ago I bought one of those machine shop microscopes on eBay for \$20. Just now, I started playing around with it and noticed that sand looked much better under this microscope. I used a black surface and the sun as illumination. The camera was my iPhone.

I know this is not very professional, but fun and the equipment was handy and inexpensive. The microscope:



The red looking sand:



The black looking sand:



The green looking sand:



Don't ask me about the name of the various minerals. I just enjoy nature and my instruments which allow me to see more than I ever imagined.

For more on this subject, I recommend the book: "A Grain of Sand, Nature's Secret Wonders" by Dr. Gary Greenberg.

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