

On Sunday, we had a family picnic. It was one of the rare days when the children didn't have any sports tournaments, and the weather was perfect. We quickly made plans to go down to a local river to spend a few hours. The river was quite high because it is early spring, and there is a lot of snow melting in the mountains, filling the rivers and streams. We walked along the riverbank until we found a flat, beach area where we set up our chairs, food, and equipment. When I say equipment, I mean specifically our metal detector, and our gold panning tools. There is gold in the Wenatchee Valley; a gold mine was quite profitable for many years. And now, you can find small deposits here and there, especially in river banks. After we ate, we immediately started digging up the muddy sand, putting it in the sieve, and rinsing it in the river. As the fine mud washed away, small rocks and bits and pieces were left behind. It was so exciting whenever we would find a shiny, yellow flake. "This has to be gold," my kids would say. Each time they found a piece, they would put it in a small, glass vial filled with water, and show it to my husband. "Nope, that's fool's gold," he said most of the time. Of course, they chose not to believe him. And they carried on gold panning as if their lives depended on it. Funnily enough, three groups of people walked past us, carrying serious gold panning equipment. So we realized that we were probably in the right place. So what is the difference between real gold and fool's gold? Well, they are chemically totally different. The symbol of gold is Au, and that of fool's gold is FeS₂. One is a pure mineral, the other is iron pyrite. Gold is shiny yellow even in the shade, and has round edges, whereas iron pyrite is not as shiny, and has straight edges. You can often find gold and pyrite near each other, so some of the flakes we found could be real

gold. I have them now on a dark plate, and one or two of them look like they could be the real thing. I have a feeling that we will be visiting that riverbank more in the future.