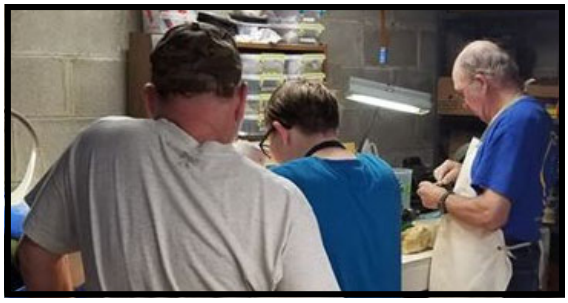
September Rock Party

By Jayne Beer



The September Rock Party was held on the 23rd at The Jewelry Connection. We had a great time with so much delicious food that all of you bought to share. We had taco meat and all the fixins for tacos and nachos. We also made an apple crisp for dessert. One highlight was that Carolyn and Paul brought an anniversary cake and celebrated their 13th anniversary with us. There were so many good dips and salads. I think everyone went home quite full.

We had several first time rock party guests. Mike and Matt were there and Matt polished his first rock on a Genie with Corey's help and teaching. Matt has been using a tumbler and doing quite well getting a great polish. He was, however, very excited to learn to use the Genie polishing machine. Steve, Lynn, and Debbie also joined us. They are students in my silversmithing class and they also take lessons at the Southeast Community College lapidary class that our club helps to support. Corey and Eddie did some polishing but I don't know who else got a chance to work on the machines. Most of the rest of us just ate and talked about rocks.

Hosts have already claimed the October, November, and December Rock Parties. If you are interested in throwing your own little party in 2019, please let us know. And make sure to attend every Rock Party we have, as you never know who might be there or what might be taught!

The Many Faces of Quartz

Excerpted from several articles on quartz written by Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas, published in Chips and Chatter, Volume 52, Issues 5, 6, 7, 8, and 9.

Quartz, also known as silica, is composed of one silicon atom and two oxygen atoms – SiO_2. It is the defining mineral for Mohs hardness of seven. Silicon is the second most abundant element in the earth's crust (around 27% of the earth's crust by weight). Oxygen is the most abundant element in the earth's crust. Most of the silicon and oxygen do not form as quartz; rather they form a silicate radical that has a tetrahedral shape. One such radical is the neosilicate where the tetrahedral shapes are isolated. Examples of neosilicates are the Olivine, Zircon, and Garnet Groups which includes the minerals Forsterite (Peridot), Spessartine, Almandine, Zircon, Kyanite, and Topaz. Scorosilecates are double tetrahedral groups that include the minerals Axinite, Zoisite, and Vesuvianite. Another variation of the silicate radical named Cyclosilicates where the tetrahedral shapes form rings that will join with other elements to form minerals such as Benitoite, Beryl, Sugilite, and Tourmaline. Still other variations of the silicate radical called Inosilicates where the tetrahedral shapes form chains that form with other elements to form minerals such as Dioptase, Jadeite, Spodumene, and Rhodonite. Still another variation called Phyllosilicates where the tetrahedral form sheets and includes minerals such as Chrysotile (a serpentine), Talc, Biotite, Muscovite, and Chlorite. Finally, we have Tectosilicates that includes the Quartz group. Other Tectosilicates include the Feldspar family and the Zeolite family. The Tectosilicates compose about 75% of the earth's crust.

It took a while, but we finally got back to Quartz. Earlier we indicated its chemical composition was SiO_2, but if you picked any random silicon atom and looked at the surrounding atoms, it would appear that the silicon atom was attached to a silicate radical. Then if you looked at the silicon atom in the radical, it would look as though it was attached to a silicate radical. Everywhere it would look like silicon silicate!

Not all members of the Quartz group are Quartz. All the members of the Quartz group have the same chemical composition, but slightly different crystalline structures (polymorphs). Quartz is the most common member of the Quartz group and forms in the trigonal crystal system. Other members of the group include the high temperature