

1145-M5-720 **Matthew G Jones*** (mjones@csudh.edu). *What I Learned About Sharing Long After Kindergarten.*

Have you ever tried sharing a dessert, like a birthday cake, with someone, and wondered how to share it fairly? What happens when you have a batch of cookies to share, some with nuts and some without—how can you share them fairly? What if you are dividing up a number of items between two people, say a jewelry collection, where the items cannot be broken apart? What does it mean to share fairly?

This Math Teacher Circle session develops ideas of what it means to share fairly, allows participants to conjecture (and in some cases, prove) properties of some approaches to fair sharing, and to compute iterations that lead to the adjusted winner in some examples. In this presentation, I will give the broad outline of the session and provide session resources. (Received September 13, 2018)