

## Authentic Data Integration

I teach at a small Jewish Preschool that draws its curriculum from many different philosophies. The director of the preschool is very against using modern electrical technology in the classroom. I can not use computers or Ipads to show my students any data sources. Occasionally this can be frustrating but for the most part I understand the screen free philosophy. If I want to show my students pictures or graphs, I print them ahead of time or I make them myself. I try to expose even my youngest learners to data and data collection. Every fall comes the holiday of Rosh Hoshanna, the New year of the Jewish calendar. This holiday typically falls between the middle of September thru the middle of October. When school begins around Sept 6th and Rosh Hashanah falls the next week, there is very little time to creatively teach about the science of the holiday. In years when it falls a little later in the year, I can cover more about the symbols of the holiday. One of the traditions of the holiday is eating a slice of apple dipped in honey. This symbolizes having a sweet and healthy new year. If I have a few weeks, I can teach about apples and bees. For our apple lesson plan, we cover all the basics, such as an apple comes from a tree, an apple is a fruit because it has seeds, and the seeds grow new trees. We examine apples, investigate them, try to build apple trees and how many apples can we balance on the tree, and my favorite, trying apples! For this activity, I provide small pieces of green, red, and yellow apples. The students try them and analyze which apples they liked best. I have pre cut small apples in red, yellow, and green construction paper. The older students write their name on the apple (I will write it for the younger students and go over the letters of their name) and then they place their apple on a chart on the wall of the school. The chart is labeled with their class name and the colors of the apple. I show the chart and show them how to read it and how they will use it. The chart is folded so that each class area is at a child level height and as the day goes by and more and more data is collected, the chart unfolds and gets higher and higher. I then post the chart in the hallway of my school so all the students, parents, and teachers can see the results. This activity is one I always enjoy doing with my students because they are being asked to notice there are many different kinds of apples, try new things (often they have never had a different kind of apple) , make decisions (what kind of apple they liked best) and put their data into a group collection.

Since this activity always falls in the beginning of the school year, I feel data collection starts the year off in an exciting and tasty way, where their opinion matters but there is no wrong answer. Their opinion is valued and displayed for the entire school to see. Often this activity is before the holiday with the most visitors to our building so many synagogue members and families will notice what the students are up to. As I began taking this class, this activity has come back to me many times and I now see ways to improve it. At the end of every group, we can count the apples, think about which group is bigger or smaller, and tally the total numbers in the group and for the whole school at the end of the day. I want to find ways to include more math and numbers in my science class. This will also help data collection for many activities such as counting flowers in the garden, using a set number of blocks in a building/engineering challenge,s measuring the length of our bodies, scavenger hunts to find the number pinecones

in a sensory bin, or counting while we do a timed game challenge. I hope to find even more ways to elicit data collecting from my students since this help improve their math knowledge, early writing attempts, and number recognition. This data collection can also be brought back to the classroom and posted, an activity that will hopefully bring the science to their classroom and reminders in their day to day activities and will encourage the use of this scientific thinking everyday in their classroom. By incorporating this data in my class room we will be doing more science and therefore engaging our youngest learners and setting them on a long and rewarding STEM pathway.