

Labdisc

portable STEM lab



On December 9, 2016, Backbone Communications partnered with Boxlight/Labdisc for National STEM Day 2016 at Tolson Elementary in Tucson! Approximately 50 4th grade students at a Title I school had the opportunity to go hands on with LabDisc devices and study the environment around them. Students worked in groups of four or five, using a LabDisc device to measure air pressure, humidity, and temperature, at various locations inside and outside on the Tolson campus.



“Our students are SO lucky to have access to this technology! Thank you LabDisc, and thank you, Backbone Communications!!”

Ron Pierce, 4th Grade teacher, Tolson Elementary

Students worked in different roles as data collectors and analysts to determine the inverse roles of temperature and humidity. Once the data was collected, students uploaded their data to ipads or desktop computers to analyze differences in environmental data on a map with recorded GPS data.



On February 15th 2017, about 20 4th grade students at Tolson once again participated in Boxlight/LabDisc’s first STEM day of 2017. This time, the focus was on using LabDisc to measure their heart rates. Using LabDisc devices coupled with the LabDisc external heart monitor, a variety of students took turns making predictions about their resting heart rates versus their active heart rates. Students then worked in groups of four or five to create charts that described the resting heart rate, active heart rate, and post active heart rate using the data provided by the LabDiscs. Ron Pierce, teacher at Tolson, decided to implement some cross curricular mathematics activities by having students take their heart rate samples in 10 second increments, and then multiply by 6 in order to determine heart rate on a minute by minute basis.

The next STEM day will be announced in April, and students will use their LabDisc devices to measure Ph levels in a variety of liquid substances. Stay tuned!

“It’s fun to use LabDisc because we get to go outside with the LabDiscs and measure things about our environment!”

Aaron, 4th grade student

“I predicted my heart would beat faster than usual, even when I had a minute to rest.”

Maria, 4th grade student