Acknowledging the lack of information that middle school students have about engineering, this interactive paper session presents promising results from the “Advancing Out-of-School Learning in Mathematics & Engineering” (AOLME) project in the implementation of its integrated (mathematics and engineering) curriculum through digital image and video representation with middle school students during two summer sessions. Results are used to contrast the pros and cons for students representing images using two different computer platforms and they also highlight the processes that best supported successful student understanding and image and video representation.