

# **ASTRONOMY-TO-GO**

## **The John J. McCarthy Observatory**

**LESSON:** Properties of Sound and Music **(2)**

**CURRICULUM:** Grade 4, (CT Std. 5.1), Sound and light are forms of energy.

**GUEST INSTRUCTOR:** Parker Moreland

**TIME:** About 45 minutes

**LOCATION:** SNIS Planetarium

**TEACHING AIDS:** PowerPoint presentation; small drum w/ rice; violin and/or other musical instruments; iPad/iPhone apps to generate and visualize pure and complex tones.

**DESCRIPTION:** PowerPoint presentation plus interactive demonstrations

After introducing the concepts of vibration, frequency/pitch, speed of sound in air & other media, loudness/intensity, we will demonstrate each of these phenomena with modern instrumentation and familiar musical instruments. We will explore human hearing, and make a crude estimate of each student's hearing acuity as a group exercise.

**ASSESSMENT:** Q & A period after, time permitting.

PEM 7/6/2014