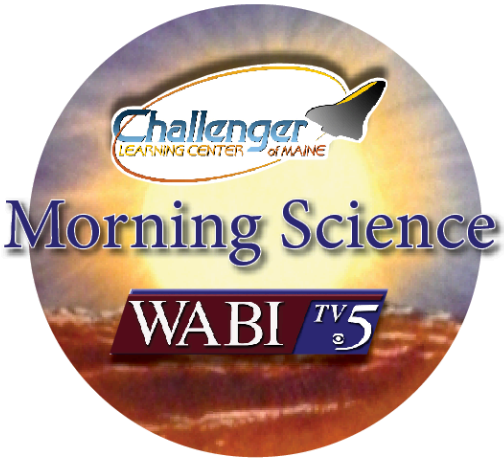

Challenger's Morning Science Segment

June 15, 2015

Topic: Science of Music

Build: Straw Flute

Materials needed:

8 straws / scissors / ruler / clear tape / fine-tipped permanent marker

Building Straw Flutes

Measure and cut straws to different lengths, from long to short. Next, straws are taped together while aligning each straw to form an even row across the top. Cut and tape the straws in the following order: 19.5 cm, 17 cm, 15.5 cm, 14.5 cm, 13 cm, 11.5 cm, 10 cm, 9.5 cm. Finally, using the permanent marker, label the straws 1-8, with 1 being the longest straw.

The science [credit: Museum of Science & Industry Chicago]:

When we blow across the openings of the straws, the air in the straws vibrates. Each straw represents notes of a scale. The vibrations travel from the straws to our ears and we hear a different pitch for each straw. The longer the straw, the lower the note or pitch; likewise, the shorter the straw, the higher the note or pitch.

This activity ties into the following Challenger Camp:

Fun with Science, June 22-26, 2015 [grades K-2]

We build these straw flutes during the exploration of the science of music. We also test the idea of pitch or high/low tones by working with a variety of xylophones. Discussions surround how sound waves travel from the instruments that campers create, thru the air, and into our ears!

Songs to play with the straw flute:

Twinkle, Twinkle Little Star

11 55 66 5 44 33 22 1

55 44 33 2 55 44 33 2

11 55 66 5 44 33 22 1

Jingle Bells

333 333 35123

444 4433 3355421

Mary Had a Little Lamb

3212333 222 355

3212333 322321