

Andy the Musical Scientist - Music Meets Science

KNOW

About the Artist



Andy the Musical Scientist (formerly of the band Delhi 2 Dublin) is a musician who brings together his love of science and music in to one very unique performance. Using his own inventions that he created out of recycled items after being inspired by his travels in Africa, Andy encourages creative and critical thinking while demonstrating scientific principles of music, pro-active recycling, and multiculturalism.

About the Performance

This unique 45 performance uses science to encourage enthusiasm for music, and vice versa. The show begins with Andy demonstrating some of his unique instruments that are based on traditional instruments of other cultures. He then proceeds to describe the scientific principles upon which they operate. Describing his experience of witnessing African children making instruments out of recycled items, he then proceeds to transform an old wooden spoon in to a guitar. During the show, students get to experience the Lego Theremin and beatboxing on his digital looper. This is a chance for them to truly express themselves! Andy's demo video: <https://www.youtube.com/watch?v=6Z76TLObsuA&feature=youtu.be>

About the Art Form

This performance draws from traditional music of various cultures, along with Andy's own history as a scientific inventor. Inspired by the example of African children transforming recycled items in to musical instruments, Andy uses his own unique instruments such as the African skateboard, Moroccan hockey stick, and Lego theremin (made from discarded items) to encourage pro-active recycling. Critical thinking is encouraged through the demonstration of scientific principles involved in the process of inventing instruments. The performance shows how there is much to be learned from other cultures. It also demonstrates that with creative thought and imagination, music, science, and recycling can all be a lot of fun!

Recommended viewing: Landfill Harmonic: <https://www.youtube.com/watch?v=sJxxdQox7n0>

WONDER

Links to Curriculum

- Science: A demonstration of principals of physics and modern technology in the creation of music. An example of how critical thought can find creative uses for discarded items.
- Music: An introduction to the music of other cultures that inspired Andy's unique instruments. Students also get to experience chanted rhythms, beatboxing / looping, and playing the theremin.
- Multiculturalism: A description of how the wisdom of African children in reusing items rather than allowing them to go to waste inspired Andy's own recycled inventions.

Pre-Performance Discussion Questions

- Why is it good to find new ways of doing things?
- What are some ways that new uses can be found for discarded items (such as tin cans and bottles etc)?
- Why is it good to find uses for these items rather than throwing them away?

Post-Performance Activities

- Find some common items in the classroom such as rulers, rubber bands, boxes, desktops, etc., and find creative ways to make music with them or even transform them in to musical instruments.
- Learn or create new rhythms by chanting rhythmic phrases such as "I want more ice cream".
- Video: How to make an instrument out of rubber bands:
https://www.youtube.com/watch?v=b-Oocwv_HUU

LEARN

Post-Performance Discussion Questions

- What are some examples of scientific principals in various instruments such as guitar or drum?
- What are some common, everyday items that can be used to make music?
- What are some of the problems in the world that we can solve through using science?