

Doktor Kaboom! *It's Just Rocket Science!*

New show for the 2011-12 Season

Announcing an all new Doktor K show, combining the high energy interactive comedy your audiences have come to love, and another explosive line up of science routines tying directly to national and state curriculum content standards!

This new show focuses on the scientific hurdles of space travel, and is aimed primarily at grades 5-8 and families, although it is easily adaptable for other age groups. Below is a brief outline of what the show encompasses.

I. Character Introduction

Intro Doktor Kaboom, establish "rules" for interaction, Safety Protocol

II. Math Patterns

Using a screen and a tablet computer, explains that mathematics is not about numbers, but about patterns. Numbers are just the alphabet for mathematics. Demonstrates several math patterns, teaches entire audience to multiply 2 digit numbers by 11, in their heads, faster than a student on stage can do it with a calculator. This routine gets the entire audience excited about math!

III. Trajectory

Adaptation of catapult/banana routine to teach different concepts. Rather than demo simple machines, routine focuses on defining trajectory and force

IV. Centripetal Force

Defines centripetal force, and corrects the idea of centrifugal force. Using a small platform on a rope, Doktor Kaboom swings a large clear beaker filled with colored water in circles. Eventually the beaker is circling around his head as he discusses centripetal force, and its possible use to create artificial gravity for long-term space travel.

V. Momentum and Inertia

Defines momentum and inertia. Short demonstrations of each term, then a group demonstration explaining transference of momentum using volunteers with basketballs, and tennis balls.

VI. Action/Reaction

The foundation of rocket science! Explains the concept of Newton's Third Law and demonstrates by having a volunteer help construct a 3 foot tall rocket powered by the chemical reaction of vinegar and baking soda.

VII. Exit

Character summarizes show concepts, reminds about safety, thanks audience for the honor of performing for them. Doktor Kaboom then straps on a jet pack, hops on a skateboard, and exits the stage via rocket power.

View a demonstration of Doktor Kaboom building a rocket at:

<http://www.youtube.com/watch?v=sHLfadiMs5I>