



May The Force (of Static Electricity) Be with You!

PROGRAM DESCRIPTION

The Force (of Static Electricity) surrounds us, binds us, and is a whole lot of fun to explore! Come Padawans, learn the secrets of static electricity and join interactive demonstrations on how you can harness its Force to move objects, generate lightning, propel starships, and more. Join me and 'SH0-K3R' my 600,000-volt Van de Graaff generator as we show you cool 'Jedi' tricks and help you learn the Physics behind The Force (of static electricity)!

Visit STEMpunkED.com/Programs for more details

LOGISTICS, FEE & DELIVERY REQUIREMENTS

Duration: 2.0 hour interactive program | **Age Range:** 6-Adult | **Participants:** 4-60

Cost: See Website | **Requirements:** Video Projector with HDMI port and speakers ; 2 large table for presenter's items ; electricity hookup ; 1.0 hour setup and breakdown times ; additional travel charges may apply. | **Stage Show Note:** For large venues the Van de Graaff Generator requires a 20 amp power source that is on a separate circuit from A/V equipment.

CORE TOPICS & GOALS

▲ Compare and contrast the behaviors of magnets and statically charged objects; explain how the behaviors of each occur at the atomic level

▲ Demonstrate how static charges can attract and repel objects and how static charges can be stored in and transferred through objects

▲ Differentiate between the effects of static charges when they are allowed to build up as a field and when they are allowed to go to ground as a stream



CORE TOPICS & GOALS

▲ Concentrate static fields into ion streams capable of projecting static electricity effects as well serving as propulsion for spacecraft

▲ Harness the energy in static fields to power light tubes and to re-create the phenomena of lightning

▲ Trace the operations of a Van de Graaff generator using component diagrams; disassemble a Van de Graaff generator to explore its components and visualize its operations (time permitting)