



# TEACHER'S GUIDE

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2017-2018 Class Acts season sponsored by



## **Doktor Kaboom – LIVE WIRE!**

Tuesday, February 13, 2018  
10:00 AM & 12:30 PM

Dear Educator,

Welcome to Class Acts at the University of Illinois Springfield's Sangamon Auditorium! We hope this guide will help you expand on concepts from this particular performance and incorporate them into your classroom teaching, both before and after the performance. We want students to think of the arts as an integral part of their lives, not just a one-time event.

Before arriving at the Auditorium, you can prepare your students by helping them understand the story or by sharing basic information about the art form they are going to see. We also ask you to review the theater etiquette information with your students (found on pages 2-3 of this guide) to help prepare them for attending a live performance.

After the performance you can talk to your students about their experience. Did they enjoy the performance? What did they learn? How was the performance different than what they expected? We hope the information and activity ideas included in this guide will help your students gain a deeper understanding of the performance they see.

We look forward to seeing you! If you have any questions about these materials or about the performance, please feel free to contact me at (217) 206-6150 or [azepp2@uis.edu](mailto:azepp2@uis.edu).

*Amy Zepp*

Audience Development Coordinator



Youth programming in the Class Acts series and in conjunction with other Sangamon Auditorium events is supported in part by the Helen Hamilton Performing Arts Endowment for Youth Fund, gifts from Elizabeth and Robert Staley, and a grant from the Illinois Arts Council, a state agency.



## Theater Etiquette

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Going to a live theatrical performance is different than watching a movie or TV show – the members of the audience are very important, and the way they behave will affect the performance. Therefore, theaters have their own special rules about behavior.

- **Ask the ushers if you need help with anything** – The people who wear red coats are volunteer ushers, and they want to make sure everyone is able to enjoy the performance. They will guide you to your seat, and they can help you find a restroom. In any emergency situation, the ushers will help guide your class to safety. There may be as many as 1700 people coming to see the performance. Please follow the instructions of the ushers at all times.
- **Turn off and put away cell phones, beeping watches, or anything else that can light up or make noise** – These can be very distracting to the performers and your fellow audience members.
- **Do not eat, drink, or chew gum in the auditorium** – Even the quietest chewers and slurpers can be distracting to the performers and to the other people around you. Also, even if you are very careful, food and drinks can sometimes make a mess in the auditorium. We try to keep the auditorium as clean as possible so that it will be just as nice for the next audience.
- **Never throw anything in the auditorium** – This is distracting and dangerous for the performers and people in the audience.
- **Do not put your feet on the back of the seat in front of you**
- **Please do not wear a hat inside the auditorium** – It is difficult for the people behind you to see the stage if you're wearing a hat.
- **Use the restroom before the performance begins** – As soon as your class arrives and is seated in the auditorium, the teacher can arrange visits to the restroom before the performance begins. The ushers will help you find the closest restroom. Of course, if you *must* use the restroom during the performance, please be as quiet as possible about leaving your seat. Once you get to the aisle, an usher will help you find the way.
- **When the lights begin to dim, the performance is beginning** – This tells the audience to stop conversations, get settled in their seats, and focus their attention on the stage. A person will come out and make an announcement before the performance begins. Pay close attention to the announcement because it might include special instructions that you will need to remember.



- **Remember that the overture is part of the performance** – If the performance has music in it, there might be an opening piece of music called an overture before any actors appear on stage. Give this piece of music the same respect you give the performers by being quiet and attentive while the overture is played.

- **Do not take pictures or recordings during the performance** – The flashes can be distracting to performers, and it is against the law to take pictures or recordings of many performances.



- **Refrain from talking, whispering, and making noise during the performance** – Remember that live performers can see and hear you from the stage. It is very distracting to the performers and the other audience members if you talk during the performance. After all, the audience came to hear the professionals perform!

- **It's ok to react to the performance** – Spontaneous laughter, applause, and gasps of surprise are welcome as part of the special connection between the performers and the audience during a live show. However, shouts, loud comments, and other inappropriate noises are rude and distracting to the actors and your fellow audience members.

- **Clap at the appropriate times** – If you are enjoying the performance, you can let the performers know by clapping for them. During a play or musical, you can clap between scenes (during a blackout) or after songs. During a music concert or dance performance, you can clap after each piece is performed. In a jazz music concert it is ok to clap in the middle of a song when a musician has finished a solo. If a music ensemble plays a piece with several sections, called movements, the audience will usually only clap at the very end of all the movements.

- **The performers will bow when the performance ends** – This is called a curtain call. You should applaud to thank the performers for their hard work, but you should not begin to leave the auditorium until the curtain call is over and the lights become brighter. If you really enjoyed the performance, you are welcome to give a standing ovation while you applaud. This is reserved for performances you feel are *truly outstanding!*

- **Respect the hard work of the performers** – You may not enjoy every performance you see, but I hope you will recognize that each performance requires a tremendous amount of dedication on the part of the performers and those who work backstage. It is polite to keep any negative comments to yourself until you have left the building.



## Class Acts and Common Core

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Attendance at any Class Acts event can help teachers meet Common Core Standards. The clearest example can be found in the Standard for Speaking and Listening, #2:

*Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.*

The experience of attending a live performance is a unique format that can greatly enhance a student's understanding of an important topic or theme.

Additionally, in the Common Core Standards for Reading, the definition of the word "text" can be expanded to include non-printed works such as dance, music, theater, and visual arts. This makes the arts an important part of all standards in the Reading category, at every grade level.



## Write to Us!

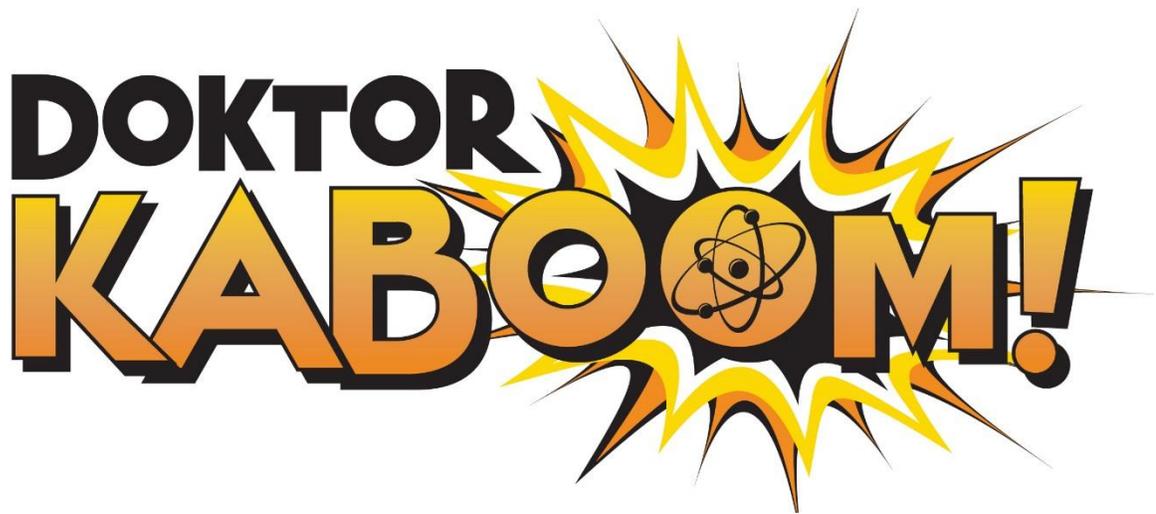
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We would love to hear from you and your students! If your students write about the performance they saw or create artwork related to it, you are welcome to send it to us via email to [azepp2@uis.edu](mailto:azepp2@uis.edu) or through the mail to:

Amy Zepp  
Performing Arts Services  
University of Illinois Springfield  
One University Plaza, MS PAC 397  
Springfield, IL 62703

We love sharing student work with our Class Acts sponsors, so they can see the impact of their donations.

# DOKTOR KABOOM!



## LIVE WIRE! THE ELECTRICITY TOUR

Written and performed by David Epley

This play was co commissioned by Doktor Kaboom, LLC and the John F. Kennedy Center for the Performing Arts and was first presented at the Kennedy Center with the world premiere during the 2014-2015 season.

## Introduction

Doktor Kaboom! strives to remind audiences of all ages that the foundations of scientific discovery can be joyful tools for a lifetime. Through highly interactive comic performances we encourage students to express their awe of scientific demonstrations, to creatively explore the world around them, and to realize that science and mathematics are meant for everyone.

## Artist Bio

Doktor Kaboom is the creation of Actor/Comedian David Epley. David has been fortunate enough to discover two passions in his life. Science, his first, took him to studies at the North Carolina School of Science and Mathematics. His second, performing, became his career, and for 20 years David has made his living writing, performing, and directing original interactive comedy across the US and Canada.

Since creating the character of Doktor Kaboom, science education has become David's life, taking him to theatres and schools all over the world. He has had multiple national television appearances, performances at the John F. Kennedy Center, and recently participated in a Global Online Town Hall hosted by former Vice President Al Gore.

David lives in Seattle, Washington, and is the proud papa of his 7-year-old daughter, Jindalee. He believes strongly in service, is a veteran of the US Army, and for five years volunteered as an EMT and firefighter with his local Fire/Rescue department.

**Grab your lab coats and safety goggles.  
This one-man science show can be electric!**

## One Man and the Power (and Fun!) of Electricity

Science is a blast, and nothing says scientific discovery quite like “*kaboom*.” Get ready for a hilarious hour of electrical entertainment with Doktor Kaboom. Although this may be a “one-man show,” Doktor Kaboom will ask for your help in this fun and funny exploration of electricity. Learn more here, and pay special attention to the bolded words, which you will hear on stage.

### Those Crazy Electrons

Electricity begins with **atoms**. Everything is made of these molecules that are so small millions could fit on a tiny pinhead. **Protons**, **neutrons**, and **electrons** make up atoms—and how they play together is where things really get interesting. Protons have a positive **charge** and electrons have a negative one (the neutrons have no charge). Because opposite charges are drawn to each other, protons and electrons usually stay in the same atom. But sometimes electrons make a radical move to another atom... and *kaboom!* This is electricity. **Watch...as Doktor Kaboom and audience volunteers test the idea that opposites attract.**

### It's a Gas!

Substances have four states—solid, liquid, gas (think ice, water, steam), and another gas-like state called **plasma** that conducts electricity (think lightning). **Watch...when Doktor Kaboom tries a device that will use a flow of electric charge—called *electric discharge*—to make an **arc** (or current) of plasma in the air.** As Doktor Kaboom says, what could possibly go wrong?

## On the Move

Electricity is all about movement. When you rub your shoes on the carpet on a dry winter's day and touch a doorknob, you get a little shock, right? That's because you picked up extra electrons that move when you touch something else. This is called **static electricity**. *Watch...for Doktor Kaboom's hair-raising demonstration of static electricity.*

**Conductors** (like metals) help electric charges move more easily. **Insulators** (like plastic) prevent charges from moving easily. **Grounding** removes a charge. The flow of electrons is called the **current**. In **direct current**, the charge moves in one direction. In **alternating current**, it moves back and forth. Machines called **generators** turn energy created by movement (such as wind turbines) to electricity. *Watch...how Doktor Kaboom and friends turn riding a bike into a power-full experience.*

## Electro-magnet-ificent!

Magnets (materials that can attract other items) have two opposite points—north and south **magnetic poles**—where the magnet's force is the strongest. This creates a magnetic field that can create electricity. **Neodymium** (pronounced nee-oh-DIM-ee-uhm) magnets are among the strongest available. Is it magic or...electromagnetic? *Watch...how Doktor Kaboom lights a lamp without touching it!*

## Know Your Electrical Measurements

You may hear Doktor Kaboom use these words as he performs his experiments:

**amps** - the number of electrons moving in a circuit (a closed loop)

**voltage** - the pressure pushing electrons along an electrical current

**watt** - a unit for measuring electric power

**frequency** - how fast sound or electromagnetic waves travel

**resistance** - how much a conductor slows the passage of current

## Get to Know a Scientist...or Two

### **Michael Faraday**

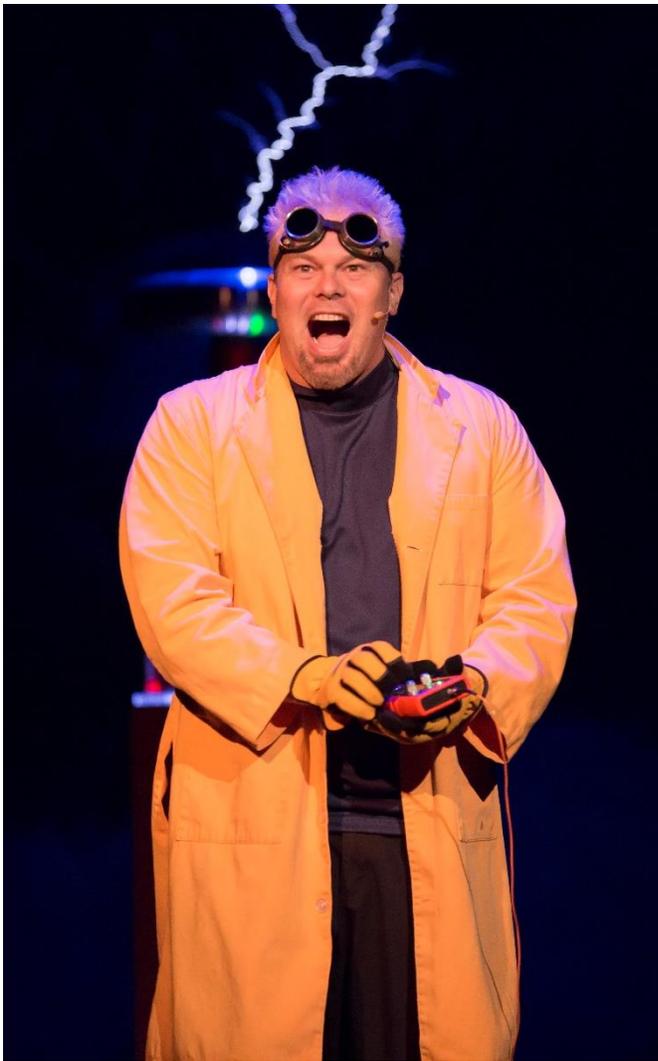
You can thank this man and his endless curiosity if you enjoy riding in cars. He discovered how to generate electricity using magnetic effects and this became the first generator. From there, his experiments led to electric motors and many other devices we use every day.

### **What's His Name? Doktor Kaboom!**

But his real name is David Epley, and he's a comedian who loves science. When he performs, he plays the role of a scientist from Germany. To show that you agree with Doktor Kaboom, remember to say "ja" ("yah"), which is German for "yes." David performs "improvisational comedy," which means he "improvises" (changes) his jokes depending on what's happening on stage.

## Practicing Safe Science

As Doktor Kaboom says, “Science can hurt you, especially if I’m the one doing the science.” In working with electricity, he has to watch out for sparks, burns, and fires. Even an expert experimenter can face unexpected dangers, so Doktor Kaboom suits up even if there’s only the tiniest chance that it’ll be necessary—and you should, too. And remember, you should only experiment with electricity with the help of a responsible adult.



Let’s look at the gear that Doktor Kaboom wears to protect his body:

**Goggles** protect his eyes.

**Lab coat** with long sleeves covers his clothing and skin.

**Gloves**--you guessed it--protect his hands.

## Do Try This at Home

After the performance, try these activities with your friends and family:

### **Bonzo Balloons**

Use balloons to explore static electricity. You'll need: a dry winter's day, two balloons, two long pieces of string, and a piece of fur or wool clothing. Blow up and tie closed one balloon. Press it against the wall. Does it stick? Now quickly rub the balloon back and forth against the fur or wool. Try the wall again. What happens, and why? Next, blow up and tie closed a second balloon. Tie a piece of long string to each balloon. Rub both as before. Holding each by the string, try bringing them together. What happens? Why?

### **Heads Up for Electricity**

Make a list of all the electricity you use in one day of your life. Include things around your home like lights (and don't forget things that run on batteries!). Also include things outside your house like traffic lights. What would life be like if electricity hadn't been discovered?

Join me online for fun videos, links and daily discussion at

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See you there!

Ja? Ja!