



DOKTOR KABOOM: IT'S JUST ROCKET SCIENCE

Applause Series CURRICULUM GUIDE
CIVIC CENTER OF GREATER DES MOINES

November 12-13, 2012

Dear Teachers,

Thank you for joining us for the Applause Series presentation of *Doktor Kaboom!: It's Just Rocket Science*. The creation of actor David Epley, *Doktor Kaboom!* strives to remind audiences of all ages that the foundations of scientific discovery can be joyful tools for a lifetime. *Doktor Kaboom's* zany and spectacular experiments were a huge hit with students and teachers the last time he was in Des Moines, and we are excited to present his brand new show that takes on the scientific concepts that fuel space exploration. We hope that through the performance your students' enthusiasm for science will be reinvigorated and that they will walk away confident in the idea that "science is for everyone."



We thank you for sharing this special experience with your students and hope that this study guide helps you connect the performance to your in-classroom curriculum in ways that you find valuable. In the following pages, you will find contextual information about the performance and related subjects, as well as a variety of discussion questions and activities. Some pages are appropriate to reproduce for your students; others are designed more specifically with you, their teacher, in mind. As such, we hope that you are able to "pick and choose" material and ideas from the study guide to meet your class's unique needs.

See you at the theater,

Civic Center Education Team

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This study guide was compiled and written by Karoline Myers; edited by Michelle McDonald. Partially adapted from the "*Doktor Kaboom! It's Just Rocket Science* Educator's Resource Guide" and the John F. Kennedy Center's "*Doktor Kaboom! Cuesheet Performance Guide*".

ABOUT THE CIVIC CENTER



The Civic Center of Greater Des Moines is a cultural landmark of central Iowa and is committed to engaging the Midwest in world-class entertainment, education, and cultural activities. The Civic Center has achieved a national reputation for excellence as a performing arts center and belongs to several national organizations, including The Broadway League, the Independent Presenters Network, International Performing Arts for Youth, and Theater for Young Audiences/USA.

Five performing arts series currently comprise the season— the Willis Broadway Series, Prairie Meadows Temple Theater Series, Wellmark Blue Cross and Blue Shield Family Series, the Dance Series, and the Applause Series. The Civic Center is also the performance home for the Des Moines Symphony and Stage West.

The Civic Center is a private, nonprofit organization and is an important part of central Iowa's cultural community. Through its education programs, the Civic Center strives to engage patrons in arts experiences that extend beyond the stage. Master classes bring professional and local artists together to share their art form and craft, while pre-performance lectures and post-performance Q&A sessions with company members offer ticket holders the opportunity to explore each show as a living, evolving piece of art.

Through the Applause Series— curriculum-connected performances for school audiences— students are encouraged to discover the rich, diverse world of performing arts. During the 2012-2013 season, the Civic Center will welcome more than 45,000 students and educators to 14 professional productions for young audiences.

.....
Want an inside look? Request a tour.
.....

Group tours can be arranged for performance and non-performance dates for groups grades 3 and above.

Call 515-246-2355 or visit CivicCenter.org/education to check on availability or book your visit.

DID YOU KNOW?

More than 250,000 patrons visit the Civic Center each year.

The Civic Center opened in 1979.

The Civic Center has three theater spaces:

- *Main Hall, 2744 seats*
- *Stoner Studio, 200 seats*
- *Temple Theater, 299 seats (located in the Temple for the Performing Arts)*

No seat is more than 155 feet from center stage in the Main Hall.

Nollen Plaza, situated just west of the Civic Center, is a park and amphitheater that is also part of the Civic Center complex. The space features the Crusoe Umbrella sculpture.

The Applause Series started in 1996. You are joining us for our 17th season of school performances.

GOING TO THE THEATER . . .



YOUR ROLE AS AN AUDIENCE MEMBER

Attending a live performance is a unique and exciting opportunity. Unlike the passive experience of watching a movie, audience members play an important role in every live performance. As they act, sing, dance, or play instruments, the performers on stage are very aware of the audience's mood and level of engagement. Each performance calls for a different response from audience members. Lively bands, musicians, and dancers may desire the audience to focus silently on the stage and applaud only during natural breaks in the performance. Audience members can often take cues from performers on how to respond to the performance appropriately. For example, performers will often pause or bow for applause at a specific time.

As you experience the performance, consider the following questions:

- * What kind of live performance is this (a play, a dance, a concert, etc.)?
- * What is the mood of the performance? Is the subject matter serious or lighthearted?
- * What is the mood of the performers? Are they happy and smiling or somber and reserved?
- * Are the performers encouraging the audience to clap to the music or move to the beat?
- * Are there natural breaks in the performance where applause seems appropriate?

A SPECIAL EXPERIENCE

Seeing a live performance is a very special experience. Although it is not required, many people enjoy dressing up when they attend the theater.

THEATER ETIQUETTE

Here is a checklist of general guidelines to follow when you visit the Civic Center:

- * Leave all food, drinks, and chewing gum at school or on the bus.
- * Cameras, recording devices, and personal listening devices are not permitted in the theater.
- * Turn off and put away all cell phones, pagers, and other electronic devices before the performance begins.
- * Do not text during the performance.
- * Respect the theater. Remember to keep your feet off of the seats and avoid bouncing up and down.
- * When the house lights dim, the performance is about to begin. Please stop talking at this time.
- * **Talk before and after the performance only.** Remember, the theater is designed to amplify sound. Other audience members and the performers on stage can hear your voice!
- * Use the restroom before the performance or wait until the end. If you must leave the theater during the show, make sure the first set of doors closes before you open the second — this will keep unwanted light from spilling into the theater.
- * Appropriate responses such as laughing and applauding are appreciated. Pay attention to the artists on stage — they will let you know what is appropriate.
- * Open your eyes, ears, mind, and heart to the entire experience. Enjoy yourself!

GOING TO THE THEATER information is adapted from the Ordway Center for the Performing Arts study guide materials.

CIVIC CENTER FIELD TRIP INFORMATION FOR TEACHERS



Thank you for choosing the Applause Series at the Civic Center of Greater Des Moines. Below are tips for organizing a safe and successful field trip to the Civic Center.

ORGANIZING YOUR FIELD TRIP

- * Please include all students, teachers, and chaperones in your ticket request.
- * After you submit your ticket request, you will receive a confirmation e-mail within five business days. Your **invoice will be attached to the confirmation e-mail.**
- * Payment policies and options are located at the top of the invoice. **Payment (or a purchase order) for your reservation is due four weeks** prior to the date of the performance.
- * The Civic Center reserves the right to cancel unpaid reservations after the payment due date.
- * Tickets are not printed for Applause Series shows. Your invoice will serve as the reservation confirmation for your group order.
- * Schedule buses to arrive in downtown Des Moines at least 30 minutes prior to the start of the performance. This will allow time to park, walk to the Civic Center, and be seated in the theater.
- * Performances are approximately 60 minutes unless otherwise noted on the website and printed materials.
- * All school groups with reservations to the show will receive an e-mail notification when the study guide is posted. Please note that study guides are only printed and mailed upon request.

DIRECTIONS AND PARKING

- * Directions: From I-235, take Exit 8A (Downtown Exits) and the ramp toward 3rd Street and 2nd Avenue. Turn onto 3rd Street and head south.
- * Police officers are stationed at the corner of 3rd and Locust Streets and will direct buses to parking areas with hooded meters near the Civic Center. Groups traveling in personal vehicles are responsible for locating their own parking in ramps or metered (non-hooded) spots downtown.
- * Buses will remain parked for the duration of the show. At the conclusion, bus drivers must be available to move their bus if necessary, even if their students are staying at the Civic Center to eat lunch or take a tour.
- * Buses are not generally permitted to drop off or pick up students near the Civic Center. If a bus must return to school during the performance, prior arrangements must be made with the Civic Center Education staff.

ARRIVAL TO THE CIVIC CENTER

- * When arriving at the Civic Center, please have an **adult lead your group** for identification and check-in purposes. You may enter the building through the East or West lobbies; a Civic Center staff member may be stationed outside the building to direct you.
- * Civic Center staff will usher groups into the building as quickly as possible. Once inside, you will be directed to the check-in area.
- * Applause seating is not ticketed. Ushers will escort groups to their seats; various seating factors including group size, grade levels, arrival time, and special needs seating requests may be used to assign a group's specific location in the hall.
- * We request that an **adult lead the group into the theater and other adults position themselves throughout the group**; we request this arrangement for supervision purposes, especially in the event that a group must be seated in multiple rows.
- * Please allow ushers to seat your entire group before rearranging seat locations and taking groups to the restroom.
- * As a reminder, children under the age of three are not permitted in the theater for Applause performances.

IN THE THEATER

- * In case of a medical emergency, please notify the nearest usher. A medical assistant is on duty for all Main Hall performances.
- * We ask that adults handle any disruptive behavior in their groups. If the behavior persists, an usher may request your group to exit the theater.
- * Following the performance groups may exit the theater and proceed to their bus(es).
- * If an item is lost at the Civic Center, please see an usher or contact us after the performance at 515.246.2355.

QUESTIONS?

Please contact the Education department at 515.246.2355 or education@civiccenter.org.
Thank you!

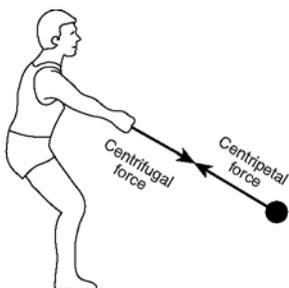
VOCABULARY



Photo: Doktor Kaboom's "Science is Coming."

apex: the top or highest part of something.

chemical reaction: occurs when two different elements or compounds come together and at least one of them changes its composition or identity.



Centripetal force and centrifugal force are often confused. Which direction does each force act in relation to the body at the center?

Image courtesy of answers.com.

centripetal force: a force that acts on a body moving in a circular path and is directed toward the center around which the body is moving.

centrifugal force: apparent force that acts outward on a body moving around a center, arising from the body's inertia.

exothermic: chemical reactions that give off heat.

force: anything that acts on a body to change its rate of acceleration or alter its momentum.

gravity: force that attracts a body toward the center of the earth, or toward any other physical body having mass.



RIGHT: We are pulled down towards the ground because of the Earth's gravity. Image courtesy of bbc.co.uk.

inertia: property in which an object at rest stays at rest, or an object in motion stays in motion, until acted upon by an outside force.

momentum: quantity of motion of a moving body, measured as a product of its mass and velocity.

STEM: acronym for Science Technology Education Mathematics.



We measure the speed that cars travel in miles per hour. Image courtesy of ehow.com.

speed: the rate of movement of an object. Speed is measured by calculating the distance traveled over an amount of time.

trajectory: the path described by a projectile flying or an object moving under the action of given forces.

thrust: the propulsive force of a jet or rocket engine.



A rocket gets its thrust from accelerating mass it carries in the opposite direction. Image courtesy of Laesieworks.com.

velocity: the speed of something in a given direction.

ABOUT THE PERFORMANCE



Photo: Doktor Kaboom's "Science is Coming."

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, Doktor Kaboom encourages 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.

Doktor Kaboom, whose real name is David Epley, is a comedian with a love of 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" (pronounced "yah"), which is German for "yes."

"It's easy to get people excited about science in the moment, but what I want is for kids to learn that it's not just for those who are naturally gifted in that direction. Science is an important part of everybody's life."

-David Epley

EXPERIMENTS AND DEMONSTRATIONS

When David Epley decided to create a new show based on rocket science, he looked for several experiments that he could do that would demonstrate the physics of space exploration. "Then I made them bigger and wrapped my character around them," he explains.

For many of his experiments and demonstrations, Doktor Kaboom invites members of the audience onto the stage to assist him. An audience member will likely help him explain centrifugal force by swinging a cutting board on a rope that has a glass of water on it. A volunteer will also shoot across the stage in a 7-foot tall "rocket car" which uses a fire extinguisher to demonstrate thrust.

Every audience member will also walk away knowing how to create their own rocket at home from everyday materials.

During the show, Doktor Kaboom will also throw in a pinch of math.

IMPROVISATIONAL COMEDY

David Epley performs "improvisational comedy," which means that he "improvises" or changes his jokes depending on what happens during the show. To add to the fun, the audience never knows what he'll say next!



DOKTOR KABOOM'S BIG IDEAS



Photo: Doktor Kaboom's "Science is Coming."

BIG IDEA #1: SAFE SCIENCE

As Doktor Kaboom says, "Science can hurt you, especially if I'm the one doing the science." He has to watch out for splashes of chemicals, or very hot or cold liquids. Even an expert experimenter can face unexpected dangers, so Doktor Kaboom suits up even if there's only the tiniest chance it will be necessary.

Goggles: Much as they do for swimmers, goggles protect scientists' eyes.

Lab Coat: Long sleeves cover Doktor Kaboom's clothing and his skin.

Gloves: Gloves protect Doktor Kaboom's hands.

What do you think?

- * Why should we always practice safe science?
- * If you are going to do an experiment or demonstration, and you already know you won't need safety glasses, why should you wear them?

BIG IDEA #2: SCIENTIFIC FACT

One of the things that Doktor Kaboom always likes to say is that "There is no such thing as a scientific fact."

We call gravity a scientific fact, when in reality, it is no such thing. We assume gravity will work as we expect, simply because it always has. Gravity has worked so far. There is always a possibility that some time in the future, it will behave differently. We must remember to keep an open mind. Sometimes a 'scientific fact' is falsified by newer and better science. That's how science works.

What do you think?

- * Do you agree with Doktor Kaboom that there is no such thing as scientific fact?
- * Can you think of examples of scientific theories that people once believed were true that have been proven false with newer and better science?

BIG IDEA #3: BEING RIGHT

When we have an idea in science, we call it a theory. We test our theory with experiments.

What do you think?

- * Does it matter in science whether we are right or wrong?

BIG IDEA #4: SCIENCE IS FOR EVERYONE

Doktor Kaboom believes it is important to remember that science is not just for people in lab coats or the science fair winners. He believes that science is for everyone, and encourages young people to never lose their love and interest for science.

What do you think?

- * How is science an important part of everyone's life?
- * Why do you think we sometimes lost interest in science as we grow older? What can we do to help ourselves remember that science is fun?

ABOUT THE ARTIST, DAVID EPLEY

Doktor Kaboom! is the creation of Actor/Comedian David Epley. During the show, David plays the role of the German scientist Doktor Kaboom. Learn more about David before seeing the performance.

TWO PASSIONS

David has been fortunate enough to discover two passions in his life. Science, his first, led him to study at the North Carolina School of Science and Mathematics. His second, performing, became his career. For 20 years, David has made his living by writing, performing, and directing original interactive comedy across the United States and Canada.

With *Doktor Kaboom!*, David brings his passions together for an exciting solo show – a science comedy extravaganza with an explosive style that refuses to allow audiences the time to catch a breath.

PERFORMANCES

David performs for many different types of audiences in many different types of settings. In addition to performances for schools, David performs for families, at outdoor festivals, and for company gatherings. *Doktor Kaboom!*'s material is guaranteed to thrill audience members of all ages and to create many laughs along the way. David's experience in improvisational comedy means that no two shows will ever be exactly the same.

PERSONAL LIFE

When he is not traveling and performing, David lives in Yellow Springs, Ohio. He is the proud papa of his daughter, Jindalee.

He believes strongly in service, is a veteran of the United States Army, and volunteers as an EMT and firefighter with his local Fire/Rescue department.

“Fantastic show today, absolutely fantastic...Doktor Kaboom’s familiarity with the audience, ability to improvise and engage the crowd sets the show apart from all other science shows that I’ve seen”

**-Philip Wilson,
New World Stages,
New York, NY**



EXPLORATION ACTIVITIES: IMPROVISATION



Photos: Doktor Kaboom's "Science is Coming."

IMPROVISATION GAME: WHAT ARE YOU DOING?

When: Before or after the show

Goal: David Epley, the creator of Doktor Kaboom, is both a scientist and an improvisational comedian. To improvise, one must be creative and able to think quickly on one's feet. Students will practice these skills by playing the game 'What Are You Doing?,' a game where you say one thing but do another.

Activity:

1. Have students stand in a circle.
2. To play, the first person pretends to do an action like brushing their teeth or planting a garden.
3. The person next to them then asks, "What are you doing?"
4. The person who is pretending to do an action must respond by saying an action that is different than what they are showing. For example, they might say "I'm playing the trombone."
5. Then the person who asked must pretend to do the action that was just said (playing the trombone).
6. The next person then asks what that person is doing and he or she will reply with another action.
7. The game continues around the circle.
8. Once everyone has grasped the game, you may implement the rule that once you make a mistake you are out. To keep everyone thinking quickly, no actions can be repeated. Keep it going as fast as you can!

Follow-up questions:

1. Did you find this challenge easy or hard? Why?
2. What was the most difficult part?

IMPROVISATION GAME: PASS THE BALL

When: Before or after the show

Goal: David Epley, the creator of Doktor Kaboom, is both a scientist and an improvisational comedian. To improvise, one must be creative and able to think quickly on one's feet. Students will practice these skills by playing the game 'Pass the Ball,' a game where participants pantomime throwing a ball.

Activity:

1. Have students stand in a circle.
2. Ask the players to pass a mimed ball to others (one ball at a time). To show who you are 'passing' the ball to, students should make eye contact with one another.
3. While the ball is passed between two students, the other students should be sure to watch it.
4. As students become comfortable, give suggestions about the nature of the ball. For example, it becomes heavier and heavier until it weighs a ton, or extremely light, extremely big, or extremely small.
5. The actors must convey the ball's characteristics in the way it gets passed.

Follow-up questions:

1. What sort of teamwork was needed to play this game?
2. How did you show that the ball was _____?
3. Do you think actor David Epley uses his body and the way he moves to portray the character of Doktor Kaboom in a certain way? Do all actors use their bodies? Why?

EXPLORATION ACTIVITIES: SCIENCE CONCEPTS



Photos: Doktor Kaboom's "Science is Coming."

FILM CAN ROCKETS: THRUST

Overview:

Doktor Kaboom will conduct a demonstration of thrust with his "rocket car". In this classroom experiment, students will explore thrust by making film can rockets powered by carbon dioxide produced by a simple chemical reaction.

Materials:

- * Old style film cans (the white/translucent ones work the best)
- * Alka Seltzer Tablets
- * Water
- * Construction paper
- * Tape
- * Scissors
- * Safety goggles

Procedure:

1. Put on your safety goggles.
2. Break the seltzer tablet into fourths.
3. Remove the lids from the film canister and put a teaspoon (5 ml) of water into the canister.
4. Drop the tablet half into the canister and snap the cap onto the canister. (Make sure that it snaps on tightly.)
5. Quickly put the canister down and step back.
6. About 10 seconds later, you will hear a POP and the film canister lid will launch into the air.
7. Now, use the construction paper to build a rocket body around the film can, with the film can upside down. Be creative and have fun!
8. Repeat steps 1-5. BLAST OFF!

Follow-up Questions:

1. Does water temperature affect how fast the rocket launches?
2. Does the size of the tablet piece affect how long it takes for the rocket to launch?
3. How much water in the canister will give the highest flight?
4. How much water will give the quickest launch?
5. Which elements of the different rocket designs out of construction paper seemed to make the biggest difference in the canister's flight?

Explanation:

When you add the water it starts to dissolve the Alka-Seltzer tablet. This creates a gas called **carbon dioxide**. As the carbon dioxide is being released, it creates pressure inside the film canister. The more gas that is made, the more pressure builds up until the cap is blasted down and the rocket is blasted up. This system of thrust is how a real rocket works whether it is in outer space or here in the earth's atmosphere.

Demonstration adapted from "Doktor Kaboom! It's Just Rocket Science Educator's Resource Guide."

EXPLORATION ACTIVITIES: SCIENCE CONCEPTS



CENTRIPETAL FORCE

Overview: During the performance, Doktor Kaboom will explore the difference between centripetal and centrifugal force. In this experiment, students will use a penny and a balloon to imitate centripetal force, such as what keeps a satellite in orbit or the motion of planets around the sun.

Materials:

- * Clear balloons, one per student or lab group
- * Pennies
- * Hex nuts
- * Safety goggles

Procedure:

1. Place a penny in a balloon.
2. Inflate the balloon and tie it off.
3. Hold the balloon from one end and spin it around quickly for a few moments, then hold it still.
4. Due to Centripetal Force, the penny will begin to roll around the inside of the balloon, imitating a satellite in orbit or the motion of the planets around the sun.
5. Try the experiment again using a hex nut instead of a penny to create a fun sound effect.

Follow-up Questions:

1. What did you observe during this experiment?
2. Why do you think the penny rolled around inside the balloon?
3. Can you think of other examples of centripetal force?

Explanation:

The penny is moving around the balloon, seeking a center point. This is an example of centripetal force. A satellite does the same thing, literally falling constantly around the planet.

According to Newton's first law of motion, a moving body travels along a straight path with constant speed unless it is acted on by an outside force. For circular motion to occur, there must be a constant force acting on a body, pushing it toward the center of the circular path.

Demonstration adapted from "Doktor Kaboom! It's Just Rocket Science Educator's Resource Guide."

EXPLORATION ACTIVITIES: MATH PATTERNS



Photos: Doktor Kaboom's "Science is Coming."

MATH PATTERNS

When: Before or after the show

Overview: It is unfortunate that many people grow up deciding they hate mathematics. It is more likely that they simply dislike numbers. Math, however, is not about numbers. Numbers are simply the alphabet of mathematics. Math is about patterns. We use numbers to describe and explore these patterns. Use the following examples to explore how math is about patterns.

Pattern Example 1:

Counting is a pattern: 1, 2, 3, 4, 5... The next number in the pattern is, of course, 6. The pattern continues on and on.

Can you spot any patterns with multiples of 9?

$1 \times 9 = 09$	$10 \times 9 = 90$	09, 90
$2 \times 9 = 18$	$9 \times 9 = 81$	18, 81
$3 \times 9 = 27$	$8 \times 9 = 72$	27, 72
$4 \times 9 = 36$	$7 \times 9 = 63$	36, 63
$5 \times 9 = 45$	$6 \times 9 = 54$	45, 54

Pattern Example 2:

Using this pattern, you can multiply 11 by any two-digit number faster than someone else can do it with a calculator. (Try it!)

To multiply any two-digit number by 11 use the following steps: (For this example we will use the number 26.)

1. Separate the two digits in your mind. (2_6)
2. Notice the hole between them!
3. Add the two digits together. ($2 + 6 = 8$)
4. Put the sum of the two numbers in the hole. (286.)
5. That's it! $26 \times 11 = 286$

The only tricky thing to remember is that if the result of the addition is greater than 9, you only put the "ones" digit in the hole. You then carry the "tens" digit from the sum. For example, 49×11 .

1. Separate the two digits in your mind. (4_9)
2. Add the two digits together. ($4 + 9 = 13$)
3. Put the "ones" digit in the hole. (3)
4. Add the "tens" digit (1) to the first number (4).
($1 + 4 = 5$)
5. This gets you the result 539. $49 \times 11 = 539$

Do a web search for the term "Math Magic" to find thousands of these patterns — and the tools for learning them.

Activity adapted from "Doktor Kaboom! Educator's Resource Guide."

RESOURCES AND SOURCES

CLASSROOM RESOURCES

Print Resources:

Schorer, L. J., and B. Aldrin. Kids to Space, a Space Traveler's Guide. Collectors Guide Pub, 2008.

Spolin, Viola. Theater Games for the Classroom: A Teacher's Handbook. Evanston, IL: Northwestern University Press, 1986.

Web Resources:

"Doktor Kaboom Builds a Rocket."

http://www.youtube.com/watch?list=PL14731932DB51A10A&v=sHLfadiMs5I&feature=player_embedded
Video clip of Doktor Kaboom showing students how they can build their very own rocket out of household objects.

NASA's Kids' Club. <http://www.nasa.gov/audience/forkids/kidsclub/flash/index.html>

Contains interactive games, photos from space, and kid-friendly information about astronauts lives and missions in space.

"Space Exploration Time Line." National Geographic Online.

<http://science.nationalgeographic.com/science/space/space-exploration-timeline/>

An interactive timeline following important milestones of space exploration from 1950-2007.

STUDY GUIDE SOURCES

Print Sources:

"Doktor Kaboom! It's Just Rocket Science Educator Guide."

John F. Kennedy Center's "Doktor Kaboom! Cuesheet Performance Guide"

Online Sources:

Cadle, Jessie. "Doktor Kaboom! Rockets to Smith Wilkes Stage." The Chautauquan Daily. [Chautauqua Lake, NY] 10 July 2012. Web.

<http://chqdaily.com/2012/07/10/doktor-kaboom-rockets-to-smith-wilkes-stage/>

Doktor Kaboom! Official Website. www.doktorkaboom.com

Mielke, Randall G. "Doktor Kaboom is All About Making Science Fun." The Courier-News. [Chicago, IL] 27 September 2012. Web.

<http://couriernews.suntimes.com/entertainment/15129263-421/doktor-kaboom-is-all-about-making-science-fun.html>

