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Doktor Kaboom: Under Pressure!

Oct. 24 - Nov. 1, 2024

GENRE

PERFORMANCES FOR YOUNG AUDIENCES

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Doktor Kaboom: Under Pressure!

Be amazed by the power of pressure—and what it can teach us.

Equal parts interactive science, comedy, and personal empowerment messages, **Doktor Kaboom** returns with a new show. *Doktor Kaboom: Under Pressure!* illustrates physical science concepts, which are also metaphors for real-life mental and emotional pressures. Praised for keeping crowds riveted with interest and rolling with laughter, Doktor Kaboom is also known for empowering volunteers from the audience to be the heroes of the moment. In *Under Pressure!*, Kaboom validates the pressures some students may feel, and shares tools and life lessons as resources for dealing with the difficulties that face us all.

October 24-November 1, 2024

Family Theater, recommended for grades 3-6

Estimated duration is approximately 60 minutes.

This event is no longer available. Registration for this event has closed.

Welcome to the *Doktor Kaboom: Under Pressure!* Learning Guide

Bring the excitement of *Doktor Kaboom: Under Pressure!* into your classroom with this explosive Learning Guide. It's more than just a preview or follow-up to the show; it's your toolkit for turning the thrill of science and the power of life lessons into sustained learning. With carefully crafted discussion prompts, hands-on activities, a peek behind the beaker with Doktor Kaboom, and additional resources, this guide equips you to keep the educational bottle rockets flying long after the show ends.

In this Learning Guide, you'll:

- Experience a theater performance that demonstrates the physics

What to Expect

Performance

of pressure and connects it to emotions.
- Understand that there are many creative and practical ways to alleviate the stress you may feel in life.
- Examine how you can use various theater skills (like connecting to one's body or playing a role) to connect to the science concepts in the show.

Education Standards Alignment

National Core Arts Standards

- Theater - Responding (TH:Re8.1.3.b): Consider multiple ways to develop a character using physical characteristics and prop or costume design choices that reflect cultural perspectives in drama/theater work.
- Theater - Responding (TH:Re9.1.5.b): Assess how technical elements represent the theme of a drama/theater work.

CASEL Competencies (Social and Emotional Learning)

- Self-Management: The abilities to manage one's emotions, thoughts, and behaviors effectively in different situations and to achieve goals and aspirations. This includes the capacities to delay gratification, manage stress, and feel motivation and agency to accomplish personal and collective goals.
  - Managing one's emotions
  - Identifying and using stress management strategies
- Responsible Decision-Making: The abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations. This includes the capacities to consider ethical standards and safety concerns, and to evaluate the benefits and consequences of various actions for personal, social, and collective well-being.
  - Demonstrating curiosity and open-mindedness

Doktor Kaboom (played by David Epley). Photo by Dan Morris.

- The performance is 60 minutes in length.
- This show is similar in structure to an hour-long comedy special. During the performance, knowledge and life lessons unfold through interactive dialogue, character-driven comedy, live science demonstrations, and some live camera projections.
- The show demonstrates and explains the existence, types, and power of physical pressures in the scientific world, and correlates them as metaphors for real-world pressures of life.
- Along the way, the character Doktor Kaboom offers lessons in recognizing and mitigating stress, as well as possibilities for turning them to one's advantage.

Performer

- The show is driven by the performance of a single character named Doktor Kaboom, an excitable and passionate German Physicist. The actor (David Epley) is also the creator of the character and the show, and is an expert in audience participation and improvisational theater.

Sound

- Some of the science demonstrations involve loud noises (literal kabooms) that may be disturbing to some audience members.
- In addition, the show involves the entire audience regularly shouting phrases together in response to prompts from Doktor Kaboom.
- Audience members are welcome to bring noise-reducing headphones or other tools to help them be comfortable. A limited number of headphones will also be available in the Family Theater lobby.

Visuals

- There will be a live camera feed projected onto a large screen behind the performer.

Lighting

- There will be general lighting on the stage throughout the performance.
- The lighting over the audience will be very dim or may turn all the way off.

Audience Interaction

- This is a highly interactive performance. Doktor Kaboom addresses the audience directly throughout the show, initiates call-and-response, and invites volunteers onto the stage to help with different experiments. All audience participation is voluntary.

What to Bring

- Everyone is encouraged to bring any sensory or accessibility tools that will help make the experience most comfortable for them. A few suggestions of items audience members may find useful include noise-canceling headphones, sunglasses or visors, fidgets, and communication devices.

Resources

- Review our Pre-Visit Story: Coming to the Kennedy Center—School Performance.

Look and Listen for

Before you watch the performance, check out this list of important moments and ideas. Look and listen for:

- The various ways that Doktor Kaboom uses science to illustrate pressure

Think About

After you've experienced the performance, consider these questions:

- Doktor Kaboom teaches that one of the best ways to deal with the effects of pressure in our lives is to talk with someone who cares about us. Who is someone you can talk to when you feel life's

- Something Doktor Kaboom creates onstage that only exists naturally on other planets
- How Doktor Kaboom treats the volunteers he brings onstage: how he supports them, allows them to be themselves, and makes sure they leave the stage with a positive sense of accomplishment and triumph—even if they get scared
- How Doktor Kaboom uses sound, lighting, and other technical and production elements to convey science content to the audience
- How Doktor Kaboom uses his gestures, facial expressions, and voice to elicit excitement from the audience

pressures?

- What things in life have caused you to feel pressure or stress? How have you dealt with it?
- Recall the explosions that happened throughout the show. Do you sometimes feel a burst of emotion when something puts pressure on you? What are some things you do to help reduce that pressure?
- How does David Epley (Doktor Kaboom) use various theater performance skills, such as humor and character acting, to make science fun and engaging for the audience? For example, David uses timing by knowing when to pause and when to say or do something on stage to make it funny or exciting for the audience. He also uses improv by making certain things up as he goes so that he can involve the audience in authentic ways.
- Live theater is often unpredictable. Did anything happen that you think was spontaneous and unexpected, even by Doktor Kaboom? How did he deal with it? What personal skills can help a person deal with unexpected things in real life?
- What are some of the emotions that arose for you as you watched the show?
- What was your favorite part of the show? What made that stand out for you?

Continue Exploring

Melt the Stress Away

Do you ever feel like you might pop from the stress of your life? Try these 10 Creative Ways to Relieve Stress from The Inspired Classroom. Not only are these great for students, but they can also work well for teachers! Incorporate these strategies into your daily routine and watch the tension melt away.

Behind the Goggles

Watch this interview and check out this article feature with the actor who portrays Doktor Kaboom, David Epley. You'll discover some profound statements about science, work ethics, and fun as he shares how his love for science has shaped his approach to both education and entertainment.

Chemistry Week

Chemistry is part of life. We come in contact with it every day! Did you know that Chemistry Week will be happening around the time of the Doktor Kaboom performances (October 20-26, 2024)? Take advantage of this exciting opportunity by learning more about it! You can also visit the American Chemical Society's Science Outreach webpage to learn about other chemistry events throughout the year.

Try It Yourself

Reaction Action

Try this science experiment that combines baking soda and vinegar to observe a fizzy chemical reaction. Start by measuring a small amount of baking soda into a container and slowly add vinegar. Watch as bubbles form and overflow. As you conduct the experiment, discuss the reaction between the baking soda (a base) and vinegar (an acid), and explore how the gas creates pressure, causing the bubbling effect. Take some time to reflect on how this reaction can be compared to the release of built-up stress or tension. Expand on this classic science experiment just like Doktor Kaboom with these additional experiments. You'll learn the science behind the reaction and see some exciting results.

Move Your Emotions

Movement and music can unlock a deeper understanding of your emotions. Through these art forms, you can express and process your feelings. Start by putting on some music and allowing students to move. Have them describe their feelings. Then, give your students the opportunity to move like a certain emotion. For example, call out, "under pressure," and have students move and then freeze in that emotion. Ask "What does it feel like?" Have them notice how they hold their body, what their facial expression is, and what they look like to others. Then, take some time to debrief and reflect on their experiences, reminding them of ways they can defuse negative emotions. For more activity ideas like this, visit this article at The Inspired Classroom and the Kennedy Center video Dance Your Feelings with Erika Malone.

Balloon Pressure

This experiment demonstrates Boyle's Law while providing talking points for social-emotional skills. Inflate a balloon halfway and tie it, then observe how you can manipulate the pressure put on the balloon by squeezing it or changing its shape. This shows how pressure decreases as volume increases (let go of the balloon) and how pressure increases as volume decreases (pinching the balloon and forcing the air into a smaller part of the balloon). As students manipulate the balloon, they experience firsthand how pressure can build up and release, much like the feeling of stress in our lives. Just as squeezing a balloon increases pressure and can cause it to burst, holding in stress can make us feel overwhelmed. By observing how releasing pressure in the balloon causes it to relax, students can draw parallels to managing their own stress and the importance of finding ways to relieve it.

Stress and Your Students

The following information is cited as an excerpt from the American Psychological Association (APA). To read the full article, "How to Help Children and Teens Manage Their Stress," you can visit the APA webpage.

Signs of stress in youth can show up in a number of ways:

- **Irritability and anger**: Children don't always have the words to describe how they are feeling and sometimes tension bubbles over into a bad mood. Stressed-out kids and teens might be more short-tempered or argumentative than normal.
- **Changes in behavior**: A young child who used to be a great listener is suddenly acting out. A once-active teen now doesn't want to leave the house. Sudden changes can be a sign that stress levels are high.
- **Trouble sleeping**: A child or teen might complain of feeling tired all the time, sleep more than usual, or have trouble falling asleep at night.
- **Neglecting responsibilities**: If an adolescent suddenly drops the ball on homework, forgets obligations, or starts procrastinating more than usual, stress might be a factor.
- **Eating changes**: Eating too much or too little can both be reactions to stress.
- **Getting sick more often**: Stress often shows up as physical symptoms. Children who feel stress often report headaches or stomachaches and might make frequent trips to the school nurse's office.

Stress Management for Kids and Teens

Facing stressors is a fact of life, for children and adults. These strategies can help keep stress in check:

- **Sleep well.** Sleep is essential for physical and emotional well-being. Experts recommend nine to 12 hours of sleep a night for 6 year olds to 12 year olds. Teens need eight to 10 hours a night. Sleep needs to be a priority to keep stress in check. To protect shut-eye, limit screen use at night and avoid keeping digital devices in the bedroom.
- **Exercise.** Physical activity is an essential stress reliever for people of all ages. The U.S. Department of Health and Human Services recommends at least 60 minutes a day of activity for children ages 6 to 17.
- **Talk it out.** Talking about stressful situations with a trusted adult can help kids and teens put things in perspective and find solutions.
- **Make time for fun—and quiet.** Just like adults, kids and teens need time to do what brings them joy, whether that's unstructured time to play with building bricks or uninterrupted hours to practice music or art. Also, while some children thrive bouncing from one activity to the next, others need more down time. Find a healthy balance between favorite activities and free time.
- **Get outside.** Spending time in nature is an effective way to relieve stress and improve overall well-being. Researchers have found that people who live in areas with more green space have less depression, anxiety, and stress.
- **Write about it.** Research has found that expressing oneself in writing can help reduce mental distress and improve well-being. Some research has found, for example, that writing about positive feelings—such as the things you're grateful for or proud of—can ease symptoms of anxiety and depression.
- **Learn mindfulness.** In a study of a 5-week mindfulness training program for 13 year olds to 18 year olds, researchers found that teens who learned mindfulness experienced significantly less mental distress than teens who did not.

How Adults Can Help

Parents and other caregivers have an important part to play, by adopting their own healthy habits and helping children and teens find stress-managing strategies. Some ways parents can take action:

- **Model healthy coping.** Caregivers can talk with children about how they've thought about and dealt with their own stressful situations.
- **Let kids be problem-solvers.** It's natural to want to fix your child's problems. But when parents swoop in to solve every little glitch, their children don't have a chance to learn healthy coping skills. Let your children try to solve their low-stakes problems on their own, and they'll gain confidence that they can deal with stressors and setbacks.
- **Promote media literacy.** Today's kids spend a lot of time online, where they can run into questionable content, cyberbullying, or the peer pressures of social media. Parents can help by teaching their children to be savvy digital consumers, and by limiting screen time.
- **Combat negative thinking.** *"I'm terrible at math." "I hate my hair." "I'll never make the team. Why try out?"* Children and teens can easily fall into the trap of negative thinking. When children use negative self-talk, though, don't just disagree. Ask them to really think about whether what they say is true, or remind them of times they worked hard and improved. Learning to frame things positively will help them develop resilience to stress.

How Psychologists Can Help

Psychologists are experts in helping people manage stress and establish positive mental health habits. Visit the Society of Clinical Child and Adolescent Psychology, a division of the APA, for advice about choosing a psychologist and information about evidence-based treatments.

Learning Guide Credits

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Accessibility Consultant: Office of Accessibility

Share your feedback!

We're thrilled that you've joined us for a performance this season! We would like to hear from your students and you about the experience. After the performance, follow these steps to share feedback:

1. Share the survey link with your students for them to complete the student survey.
2. Complete the educator survey.
3. If you're a parent or caregiver, complete the parent/caregiver survey.

Each survey will take approximately five minutes to complete. The results will be used to inform future Kennedy Center Education program planning. Thank you in advance for sharing your valuable perspective!

Begin the Educator Survey

Begin the Student Survey

Begin the Parent/Caregiver Survey

Related Resources

COLLECTION

Science

Explore how art influences the scientific world (and the science behind the art). Learn about the lives of butterflies through dance, use mobiles to recreate the solar system, and discover the colorful world pulsing inside our own cells.

SCIENCE

ARTICLE

Mindfulness Needs an Upgrade — It's Time to "Move" Our Feelings

PreK-2 teachers will make mindfulness thrive in the classroom when they integrate WORD Movement and practice conscious media selection.

ARTS INTEGRATION

Discovering Sensory Poetry with Donnie Welch

Ever have a day where you feel frustrated or bored? In this video, teaching artist Donnie Welch acknowledges those big feelings in a sensory poem activity. Take a quiet moment to consider the space around you, engage your senses, and turn your observations into art!

LITERARY ARTS POETRY & LYRICS

ARTICLE

Understanding Arts Integration and SEL

Gain an understanding of how social and emotional learning (SEL) and the arts reinforce the necessary skills to grow and develop in different settings. Learn how school-family-community partnerships contribute to equitable, trusting, and creative learning environments.

ARTS INTEGRATION

Kennedy Center Education

Building the Future of Arts Education

Professional development for educators. Summer intensives for young artists. Teaching artist guided activities. Performances for young audiences. Classroom lesson plans. Arts-focused digital media.

Kennedy Center Education offers a wide array of resources and experiences that inspire, excite, and empower students and young artists, plus the tools and connections to help educators incorporate the arts into classrooms of all types.

Our current teaching and learning priorities include:

Digital Resources Library

A robust collection of lesson plans, articles, and activities that allow students and educators of all ages to explore and learn about the arts and arts integration.

Performances for Schools

In-person and virtual performances, along with supporting educational content to help guide learning.

Current Topics in Arts Integration

Current approaches to arts integration in the classroom, inclusion, rigor, and adopting an arts integration approach at the school and district level.

The Theory and Practice of Anti-Ableist Arts Education

An asynchronous online course that invites educators and administrators to think about our students' disabilities as social and cultural identities that enrich our classrooms and communities.

Education

The Kennedy Center

The Vice President of Education is generously endowed by the **A. James & Alice B. Clark Foundation**.

Generous support for educational programs at the Kennedy Center is provided by the U.S. Department of Education.

Gifts and grants to educational programs at the Kennedy Center are provided by The Paul M. Angell Family Foundation; Bank of America; Capital One; The Morris and Gwendolyn Cafritz Foundation; Carnegie Corporation of New York; The Ednah Root Foundation; Genesis Inspiration Foundation; Harman Family Foundation; William R. Kenan, Jr. Charitable Trust; the Kimsey Endowment; The Kiplinger Foundation; Laird Norton Family Foundation; Lois and Richard England Family Foundation; Dr. Gary Mather and Ms. Christina Co Mather; The Markow Totevy Foundation; Dr. Gerald and Paula McNichols Foundation; The Morningstar Foundation; Myra and Leura Younker Endowment Fund; The Irene Pollin Audience Development and Community Engagement Initiatives; Prince Charitable Trusts; Dr. Deborah Rose and Dr. Jan A. J. Stolwijk; Rosemary Kennedy Education Fund; The Embassy of the United Arab Emirates; The Victory Foundation; The Volgenau Foundation; Jackie Washington; GRoW @ Annenberg and Gregory Annenberg Weingarten and Family; and generous contributors to the Abe Fortas Memorial Fund and by a major gift to the fund from the late Carolyn E. Agger, widow of Abe Fortas. Additional support is provided by the National Committee for the Performing Arts..

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