



**Squonk Opera Pneumatica Outreach**  
**Winter 2015-2016**  
**Student Comments**

Thank you guys for coming to my school. Your show was so fun!  
-Brooke

You guys rocked the stage. Everyone loved you.  
-Camryn

I hope that you come back soon because I will be really happy.  
-Dylan

My favorite part was when he was a big orange puffed thing.  
-Dominique

I like the part when the lady was playing the accordion.  
-Skyla

My favorite part was when you guys banged on the trash can and the circles came out and one hit me in the face and almost knocked me over.  
-Kelly

Thank you for the exciting things you showed us. I hope you come again next year for new exciting things.  
-Abduallah

I enjoyed all of your cool science and music.  
-Mikell

I hope you can come back next year when I am a 3<sup>rd</sup> grader.  
-Jason

Today I learned so much from you guys.  
-JJ

I loved how you played music and did science.  
-Haley

Your show was amazing. I am happy you came to our school.  
-Roman

I want to do cool things like you did one day because those things that you guys did were awesome, cool, funny.  
-John

It was crazy. It was fun.

-Emma

I liked your science activities and fun stuff.

-Parker

I liked the Squonk assembly. It made me smile.

-Eli

Air science is cool!

-Ryan

Thank you for doing all that cool stuff. It was great. I would give it an A+.

-Daryl

You guys are so good at science.

-Joyce

Air is cool to study and FUN!!!!!!!!!!

-Justin

You are inspiring to me!

-Megan

Thank you for showing me science is cool.

-Nikkia

It's amazing how air works and this assembly has inspired me to learn more about pneumatics.

-Lily

Thank you for the assembly. The best day ever!

-Angel

# **Squonk Opera Pneumatica Outreach**

## **Winter 2015-2016**

### **Student Reviews**

#### **Francis McClure Primary**

Thank you for letting us watch the assembly today. We really liked the guy who had spikes on him. The giant machine that made the vortexes come out of it was really cool, too. We were surprised when the 100 nails did not pop the balloon! Did you like the assembly?

-Your friends, Room 228

#### **South Allegheny Elementary**

The assembly starts with loud cheers. They threw balls up and they followed the scientist's hands. Air can impact any movement, which is called pneumatics. Air can fill up any space. It also makes sound waves so you can hear it. ....

Last of all, it was very exciting and funny. People had doubt and didn't think the experiments would work, but they did! Science is amazing!

-Taylor, 2<sup>nd</sup> Grade

Squonk Opera is a mix of science, music, and fun. They talk about air, and how it is fun but hard to study. They teach you how easy and fun it is to learn science. First, they talk about Pascal's Law. They show how and why Pascal's Law works. After that, they talk about Bernoulli's Principle. They attach long tubes to pipes and a fan which shows how Pascal's Law and Bernoulli's Principle fight against each other. Next, they talk about music and air. They play the accordion and bagpipes. The bagpipes and accordion both use Pascal's Law. Then, they created a Toroidal Vortex from a garbage can. When they hit the back of the trash can, a doughnut shaped cloud pops out of the hole. Last, but not least, they talk about air as energy.

Windmills create energy from wind. I conclude that Squonk Opera is awesome and you will love it too.

-Jenna, 5<sup>th</sup> Grade

#### **Central Elementary**

I learned so much yesterday. The fact about one nail verse 100 nails and the balloon was amazing!

-3rd Grade Student

#### **Propel East**

Dear Squonk Opera,

I am student at Propel East. You came to teach us about air. I really like the show! It was funny and interesting. One part I like the most was when Dr. Pneumatica got his

scientist suit split in half. Then out puffed his spiky suit. It was very funny! Most students would probably agree.

I also like the part when you guys made snow. I had no idea that when you compress CO<sub>2</sub> it gets 400 degrees below zero. It was fun seeing it in the air and on the hat. Thank you for teaching me that. The vortex part was fun and I think other students would agree. I liked seeing the donut shaped vortices. I might make the vortex machine you used.

The most fun part was when you popped the balloons with nails. It surprised me that you would need more pressure for more nails. I thought that you would need less pressure.

Thank you for teaching my friends, teachers, and me. I am very thankful because of it.

Sincerely, Caleb Lohr, 4<sup>th</sup> Grade

Dear Squonk Opera,

Thank you so much for coming to our school. All my friends are still talking about their favorite parts. It was really fun. I learned so many new things. I especially love Pascal's Law. I enjoyed specific parts the most. The spiky suit and the vortex made me excited. The show made me very happy.

The show was really fun. The long wiggling tubes made me laugh. They popped up and surprised me. The smoke rings were great too. They were very pretty. The spiky suit was super funny. Dr. Pneumatica looked like a big fruit! The show put learning and fun together. ....

I have a few favorite parts. My most favorite part was the smoke rings. They are beautiful and interesting. I also liked the spiky suit. I still laugh just thinking about it. I loved when they played the bagpipes and accordion too. Music has a special place in my heart. The whole show was lovely.

I am so grateful that you came to our school. The show was fun. It made everyone laugh. I appreciate that you taught my friends and I the science of air. I now know more than before. The show was the best assembly yet. It holds a special place in my heart.

Thank you so much, Brooklyn Ginsburg, 4<sup>th</sup> grade

Dear Squonk,

Thank you for coming and doing the Pneumatics assembly at our school. I especially liked the part with Dr. Pneumatica's spiky suit using Pascal's Law. I also liked when you made the toroidal vortex with theatrical smoke. I really liked all of the music that you played in the background, and when Dr. Pneumatica played the bagpipes.

Sincerely, Gracie Moon, 4<sup>th</sup> grade

Squonkers,

Thank you for coming to our school. I enjoyed when Dr. Pneumatica's spiky suit puffed up. I also liked when you blew air all over the tube and the balls shot up through the tube. I enjoyed when the pink tubes shot out and Dr. Pneumatica played the bagpipes. My favorite thing that you did was when you used the fog/smoke to show us a toroidal vortex. Thank you for coming to our school and teaching us about the science of air.

Thank you, Juliana Connelly, 4<sup>th</sup> grade

# **Squonk Opera Pneumatica Outreach Winter 2015-2016 Teacher Comments**

## **Pittsburgh West Liberty K-5**

In all of my years as a school principal, I can truly tell you that this was one of the best educational performances. Both students and staff members were amazed by how your team creatively brought science alive and made learning enjoyable.

Thanks again for allowing our students to learn and be inspired.

-Deonne Arrington, Principal

## **Ringgold Elementary School South**

From our youngest Pre-K students to our 5<sup>th</sup> grade students beginning their own science fair projects, Squonk was able to stir and excite interest in science. Squonk performed a fantastic educational opportunity for wide eyed, impressionable, young students. Educational opportunities and experiences like these are triggers that spark educational advancements.

-Sherry Black, Elementary Principal

## **Francis McClure Primary/Intermediate**

The assembly was awesome. You got a lot of compliments from the students, teachers, and principals. Thank you so much for coming to our school

-Nicole Given, Elementary Art Teacher

Kids loved it! Thanks for organizing it.

-Susan Williamson, Kindergarten Teacher

## **Ben Franklin Elementary**

We had such a great day of workshops. Everyone who attended thought it was really interesting, fun, and educational. The teachers thought it was a great experience for the kids. The fourth grade teachers are interested in coming to your show at the Arts Festival and would also like to post that date on their classroom website so students and parents can experience it together if they like.

Take care! Until next time...

Peace, Love, Pneumatics

-Kristin Ritchie, Art Teacher

## **South Allegheny Elementary**

We are so glad Squonk Opera visited our school yesterday.

All the students were engaged -- and had a joyful time at the assembly.

Hopefully one day you will be able to visit us again.

-Gail Ungar, Art Teacher

### **Elroy Elementary**

I wanted to let you know that I also got a lot of feedback about the workshops. The kids thought it was amazing and our teachers told me that it was the best assembly we have had all year! So thank you again for everything and I hope to hear from you for the next series of workshops.

-Barbara J. Girone

BA Art Education K-12; MPS Art Therapy and Creativity Development

### **Bentworth Elementary Center**

I know you made many children excited and happy that day! One of our kindergarteners severely challenged in a wheel chair, with limited verbal skills, just squealed with excitement!

-Joy Gazi, Art Teacher

Thank you very much for coming to Bentworth Elementary School to present to our students. The students enjoyed the performance and are still talking about the inflatable suit! From a teacher's perspective I appreciate that the performance was interactive. The show wasn't a lecture but rather explain, show and do activities for the students. The show was fun to watch - I was still interested after 5 viewings! Good luck and we hope you will make the trip to Bentworth again.

Thank you.

Sincerely,

Alyson O'Grady, Elementary Music

### **Central Elementary School**

Thanks again for the wonderful assembly yesterday. I was able to speak with a many of our teachers and students and they all loved the assembly.

We are looking forward to another one next year!!

Here are a few quotes I received from teachers.

-Melissa Evans, Instructional Support

The Pneumatica Squonk Opera Assembly was the best type of assembly in an elementary school - Educational, Engaging, and entertaining!

-4th Grade Teacher

My kids loved it! They were so enthused and into the show! What a great way to incorporate STEM into what we do!

-2nd Grade Teacher

Not only did my students learn about Bernoulli's Principle, I learned more about it as well.

-5th Grade Teacher





## Pittsburgh West Liberty K-5

785 Dunster Street | Pittsburgh, PA 15226  
Phone: 412-529-7420 | Fax: 412-571-7424

March 30, 2016

Squonk Opera Team,

Thanks for bringing the Pneumatica performance to Pittsburgh West Liberty. In all of my years as a school principal, I can truly tell you that this was one of the best educational performances. Both students and staff members were amazed by how your team creatively brought science alive and made learning enjoyable. Your love for the arts and science was so evident by the manner in which you presented ideas and the thoughtful questions that you posed to the students. As educators, we are always tasked with the privilege of inspiring students to be life-long learners and continue their learning outside of the classroom. Your team helped with this goal by allowing our students to think about the unique ways in which they can showcase their knowledge through art and other forms of expression. Thanks again for allowing our students to learn and be inspired.

Here are a few quotes from our students:

*"I like how they made that Spikey Suit." – Kindergarten Student*

*"I like your music and the snow." – 1<sup>st</sup> Grade Student*

*"I was shocked when you told us the fact that the snow was below zero degrees. I hope that you come back soon because I will be really happy." – 2<sup>nd</sup> Grade Student*

*"I just want to learn how they do that stuff, like the snow." – 4<sup>th</sup> Grade Student*

*"I think it was a really nice performance and all of the students were engaged. Jodi Andrews PTO President."*

Enclosed in this envelope, you will find additional letters from your newest fans. The students and adults are eager for your return. My hope is that we will be able to work together on future endeavors.

Thanks again for inspiring our students to "Think Outside of the Box"!

Sincerely,

Deonne Arrington, Principal



## Squonk Opera Explains The Science Of Air In Fun Way!



Franklin students enjoyed learning about the Science of Air, thanks to a fun presentation from the Squonk Opera!

Squonk Opera's Dr. Pneumatica helped the students to better understand Pascal's Law and Bernoulli's Principle through a series of demonstrations.

Pascal's Law says, "When air has force applied, it transmits in every direction, and with equal pressure." Students grasped this concept with Dr. Pneumatica's spiky suit, whereby the air-filled spikes in the suit popped back out, no matter how often it was pushed in. This suit also demonstrated to students how brakes, cranes and balloons work.

Bernoulli's Principle says, "Fast moving air has less pressure than slow moving air." To illustrate this principle students saw how long tubes wiggled when filled with air.

Other experiments the students participated in helped them to better understand how air makes instruments like the accordion and bagpipe make noise. They also created a toroidal vortex (or a whirling air or liquid in the shape of a donut) and were able to knock plastic cups off the heads of their classmates.

Squonk Opera created this program to help students to see what air does, even when they can't see it and the students enjoyed participating in this fun, educational program.

Please click [here](#) to see some photos from the fourth grade assembly.

Posted: Tuesday, March 15, 2016

# West Greene students enjoy entertaining scientific ‘Squonk Opera’



By C.R. Nelson March 22, 2016



Photos by C.R. Nelson/For the Observer-Reporter  
Steve O'Hearn, left, and West Greene student Sam Wilson wait to see how much pressure West Greene student Derek St. Pierre needs to apply to break a balloon sitting on 100 nails. Squonk Opera, an art and music performance ensemble from Pittsburgh, is on a mission to teach kids about air. **Order a Print**

ROGERSVILLE – Squonk Opera, an art and music performance ensemble from Pittsburgh, is on a mission to teach school kids about the science of air in a thoroughly entertaining way.

We noticed you came from Facebook – check out the 89¢ subscription deal we have for you!

Yes please!

Thanks to an education outreach grant from EQT, the Squonk performers put on a lively show Monday at West Greene High School to teach elementary students about the science of air.

“Applying science is what we call technology,” ringleader Steve O’Hearn told his audience of sixth-graders.

The students would soon learn air trapped and released in cylinders is essentially what powers the hydraulics of bulldozers.

Air also powered the assortment of Squonk Opera props that were used to make music and put into motion the hand crafted devices that would soon be blowing smoke and snowflakes and inflating long, open ended plastic streamers across the front rows of students, hovering long enough to be touched and wondered over.

O’Hearn, also known to the group as “Dr. Pneumatica,” started off the show with a star costume that inflated to prove Pascal’s Law that air pushes out in every direction.

When he pushed on a point and it popped back out, showing the power of air that seems invisible in everyday life.

But now, thanks to these science minded props, kids were seeing air in action.

Sixth-grader Samuel Wilson came onstage when surface pressure distribution was being demonstrated. He agreed that the nails were sharp as inflated balloons were squeezed, first against a board with one sharp nail in it. So how much pressure before it popped? Not much, the students learned.

But how about a board with ten nails in it? How about a board with 100 nails in it? Given enough nails, they learned, the board would turn into a mattress that they could sit on comfortably.

The Squonk science lesson also included Bernoulli’s Principle, which is “how huge airplanes fly,” O’Hearn said.

He demonstrated the principle of high pressure moving slower than low pressure with a long plastic bag, opened at one end.

His assistant, Derek St. Pierre, tried to fill it with air by blowing into it while holding the open end almost closed and blowing into it as the kids counted his breaths.

After 20 breaths the bag still looked empty. But when O'Hearn let the open end remain open and blew once into the top of the opening, the students were amazed to witness the air rushing into the low-pressure area created by O'Hearn's breath.

The bag filled in one breath and applause filled the air.

The force of air being thumped out of a large open-ended drum was another dramatic moment of discovery.

Sixth-grader Olivia Kiger's long hair helped show air pressure in motion as O'Hearn thumped a large open ended drum with enough force to blow her hair up while knocking the paper cup off her head. In order to see this force better, smoke was added to the mix and Kiger and O'Hearn thumped smoke rings into the audience. Later, a canister of carbon dioxide was used to prove that this unique gas gets very cold under pressure. Soon snowflakes were shooting up into the air, with plenty of drumrolls and shouts from the kids.

Musician Jackie Dempsey played the keyboard for the dramatic score and brought out an accordion to show how captured air makes musical notes. O'Hearn also played the bagpipes and was pleased when he was asked to play another tune during question and answer time.

"Play Copperhead Row!" someone yelled from the audience.

"This is the first time I've ever been asked for an encore," O'Hearn said with a grin as he got ready to play.

For more information about Squonk Opera's educational program and music, go to [www.squonkopera.com](http://www.squonkopera.com) and click on the media link to get to the workshop learning guide.

## TRENDING NEWS

**State college faculty authorizes strike vote**

**Charges dropped against former Ringgold High School counselor**

