Science for Everyone!

Christy L Hinkelman and Nicolette Torres
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About Us

- Christy Hinkelman
  - Teacher for 17 years
  - At Scholars for 10 years
    - First Grade
    - Fourth Grade
    - Fifth Grade LA/SS
    - Fifth and Sixth Grade LA
  - Degrees in History, English and Music
  - Performer and Director

- Nicolette Torres
  - Teacher for 16 years
  - At Scholars for 3 years
  - Fifth and Sixth Grade Science
Our Mission

We are a non-discriminatory, K-8 public charter school that provides a differentiated, challenging education for children of high intellectual ability. We are a learning community that strives to meet the intellectual, social and emotional needs of our students in a safe environment where they develop relationships with intellectual peers. Our goal is to prepare our graduates to become independent, productive, responsible and creative individuals capable of making positive contributions to society.

Goals

- Learning should have some connection to real-world endeavors
- The fundamental activity of a scholar is problem-solving
- The instructional program is designed for the needs of highly gifted children
- Integration of concepts, processes and products of each discipline
The Research

- Hundreds of studies show a positive correlation between cooperative learning and achievement. (Walters, 2000)
- Cooperative learning garners praise from the business community, which is looking for a future workforce with strong teamwork skills. (Walters, 2000)
- The most vocal skeptics are advocates for gifted students, who worry that students will be held back by the limits of the group. The existing research provides little evidence that gifted students are short-changed in cooperative-learning settings. But, then, there has been very little research focused on the truly gifted. (Walters, 2000)
What is Cooperative Learning?

- An instructional method in which students work in small groups to accomplish a common learning goal under the guidance of a teacher.
  - Learners positively depend on each other in a team to achieve a mutual learning goal.
  - Learners engage in face-to-face interactions.
  - Learners are assessed individually and held accountable for equally sharing and contributing to the …goals.
  - Learners use and develop appropriate collaborative and interpersonal skills to teach and encourage others to learn.
  - Learners reflect and assess the effectiveness of group functioning for future learning (Lin, 2006).

It improves student thinking and helps them construct their own understanding by strengthening and extending their knowledge of a subject. The sharing of ideas allows students to explore, refine and question. It promotes student involvement and engagement. It aids in the development of important communication skills (Lin, 2006).

Found to be successful at all levels (Dotson, 2001). Most students view school as competitive. This grows stronger as they progress. (Johnson, 1994)
The Idea

- A Science Carnival with booths, games activities!
- A way to maintain teaching partnership and fulfill elements of the Charter
- Previously attempted in Nevada with Health lessons - How could we improve and enhance?
  - Cross Grade
  - Interdisciplinary components
  - Invite many grades
The Assignment

- You and your partner will be focusing on the topic of ________________________________.

- You will be creating an educational experience for students in grades K-4. Each topic MUST include the following components:
  - _____ an exciting visual display/decorated space
  - _____ a lesson that teaches visitors about our topic. This might be a video, montage, skit, game etc. Be creative!
  - _____ a handout for visitors
  - _____ an activity for visitors. This may be a coloring book, word search, mini-lab etc. You must generate these on your own.
  - _____ a freebie for visitors that pertains to your topic. These may be requested from an organization, homemade, whatever. You may not use any homemade foods as your freebie.
  - _____ as part of your research, you need to contact a topical organization via a business letter/email
The process

- Topic Selection
- Scheduling
- Student led and student driven
  - Set goals per day
  - Working through the conflict
  - Figuring it out - the kids struggle
Metrolina Regional Scholars Academy
5225 77 Center Drive
Charlotte, North Carolina

Dear Representative of ____________,

My classmates and I attend Metrolina Regional Scholars Academy in the greater Charlotte area for highly gifted students. We are participating in a science project where we are creating a booth at a science carnival to teach other students about the importance of glaciers and how they affect us. We would be thrilled if you were able to participate by helping us distribute some sort of product at the end of our presentation to the participants. This could be anything from a pamphlet on glaciers to a small trinket that can represent our passion for this topic. This presentation is for grades k-4 and that yields about 160 students.

We found your website while we were conducting our extensive research and we think your organization would be a perfect one to help us display our information and represent our team. We were very happy to find an organization with extensive knowledge about this topic and we really like what you are doing as far as glaciers go. Any donations would be greatly appreciated for our presentation. Thank you for your support and we can't wait to hear back from you!

If you have any questions please contact our teacher, Ms. Torres; ntorres@scholarsacademy.org

Thank you,
The Plays

- Hunt for materials
- Matching to the standards
- Student direction and accountability
- Rehearsal time and space
- Setting up the room
- Performance
To watch a segment of the play

http://www.teachertube.com/video/shared-science-for-everyone-415938
Password:networkconference
The Challenges

- Cooperation
- Time Management
- Independence
- Creativity
- Computers!
The Event

- Logistics
  - Scheduling the space
  - Invitations and emails
  - Passports
  - Donations-bags
  - The Raffle and the Exit Slips
  - The Drawing
The Results

- I learned that the rainforest is being destroyed because people are cutting down trees. - Kathleen 1st grade

- I learned that there are windmills that collect energy. - Mason

- I learned how to make a compass out of a needle and put tape and then put it in water. - Marlee 2nd grade

- I learned that bats echo to eat flies. - Leyla Kdg

- Forests are being cut down and animals are dying because they have no home. - Ankit 2nd grade

- I learned that bats cannot see. They use their ears to do everything. That is called echolocation. - Jay 2nd grade
Name: Evelyn Jimenez Willis
Homeroom: Gutierrez
What I learned: We need to save the ocean. The rain is being cut down.

Name: Pia
Homeroom: Melago
What I learned: I learned about fastes.
Dear Science Carnival Organizers,

I have learned a lot of interesting things. Thanks for doing the Science Carnival yesterday. My favorite part was the play. I like how organized by centers and how some were in the gym and some in the cafeteria. I got a lot of cool and awesome things! It was lovely carnival! Miss Hinkleman and Ms. Torres.

Thank you for all of your hard work for making the Science Carnival. It was fun, artistic, and creative. The handouts were also fun. I think the Science Carnival helps people with their boards and speeches. The topics were very realistic! You did a lot of good work for the Science Carnival. I also loved the play! Thank you so much!

Love,
Megha

Dear Science Fair Organizers,

Thank you for such a great Science Carnival. My two favorite parts were the play and the clay center. I was hoping you could do this again.

Sincerely,
Vilma

Dear Science Carnival Organizers,

Thank you so much for the awesome science carnival you did yesterday and extra thanks to the people who did the play. I loved all the centers (the ones I got to go to)! I liked the airport one the best and I liked the cloud one too. I loved when they used different materials to make a compass and a magnet.

Sincerely, Ryan
Holt, 2nd
The Debrief

- What worked well for your group? What were your difficulties? What steps did you take to overcome any struggles with your group?

What did you do well as an individual? How did you use your strengths to the success of the group?

Evaluate the overall success of your planning and organizational time. What could you have done better in your planning?

Evaluate the success of your overall presentation. Were the students receptive? Why or why not? What changes, if any, did you have to make as the event progressed?

If you were to take part in the science carnival again, what changes would you make to your presentation and work time?

Why do you think this activity was undertaken? What are the benefits?
Evaluate the success of your overall presentation. Were the students receptive? Why or why not? What changes, if any, did you have to make as the event progressed?

I think that our presentation was good. Our activity and game really got them interested. If we were to make any changes, I think that we would have planned better, and maybe tried to get the fourth graders to be more interesting. Also, we had to change our presentation a bit, and make it shorter so that it would fit the time slot.

If you were to take part in the science carnival again, what changes would you make to your presentation and work time?
I would try to make it more interesting for the older kids. Also, I would try to talk louder, and get a more interesting handout.
Considerations for the Future

- Expanding
- Controlling the Volume
- Staggered entrances
- Donations?
Resources


For additional information contact:
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Energy Carnival and Plays
Science Carnival Passport