

Global Education Project



Global Education

Global Education Project is a newly formed non-profit organization aiming to bridge the divide between students and their access to quality STEM education. I came to the idea for the basis of GEP when I was reflecting on my years in the Herricks school district in New Hyde Park, NY. I was able to see both sides of the access to STEM education, as I had previously gone to school in Queens before my start at Herricks in the 8th grade. The differences between the standards of the two school districts were drastic, which made me realize that I had to be a part of the change that would allow students the ability to explore all their options.

GEP is an organization for students, run by students. As most of us are recent or soon to be high-school graduates, we know first-hand how much the schools we go to influence the path we decide to embark on after we are done with the secondary education phase of our lives. Although we are a newly founded organization, the experiences of our members vastly outweigh their years. Through our own commitments to the STEM field, we have seen how much we have benefited from this beautiful field, and because of this we are aware of what needs to be done to ensure that all children have the same opportunities that we have had. We hope that in the coming years, you will embark on this journey with us of giving back to our community through the most powerful medium: education. Any questions can be directed to Lopa Shah.

Our founder Lopa Shah founded Global Education Project in the summer of 2015 as a response to the differences in education from her visit to her old elementary school in Queens to her high school in Long Island. GEP was founded as an intersection for Lopa's passion in the sciences and service and in hopes of revitalizing and empowering both the education system and the students, globally. Currently, as a sophomore at Stony Brook University, she continues her research in Translational Medicine, her academic pursuits in the biological sciences and her volunteer and advocacy work at hospitals and conferences. In the future, Lopa aspires for a career in the breadth of medicine and service and one day, inspire and become a role model for children across the the world.

Thank you,

Founder, Lopa Shah

Team

Executive Committee:

President- Kenny Shah, currently a junior in Herricks high school. Her persistent interest in exploring and learning new areas of math and science has urged her to become involved with Global Education Project. She has constantly taken rigorous courses in the fields of math and science and participated in fairs to pursue her interest in the STEM field. Her inspiration to help children internationally came from her one month trip to India alone, where she discovered the growing need of education for the youth. She continues to be an advocate by volunteering at Winthrop hospital since the age of 14 and participates in many school clubs to help the people around her.

Secretary- Amna, currently a Junior Biomedical Engineering major at Stony Brook University specializing in Bioelectricity and Bioimaging with a minor in Chemistry, as well as an undergraduate researcher in a musculoskeletal lab under Dr. Mei Lin Ete Chan and Dr. Clinton Rubin. While being an undergraduate researcher, Amna has presented her work at national conferences and symposiums, competed in a global medical device design competition, and has been a two time recipient of the PSEG Explorations in STEM Summer Research scholarship.

Secretary- Vyshnavi Kodali, a sophomore in the B.S./D.O. program at the New York Institute of Technology (NYIT). Not only does Vyshnavi have a passion for her future in medicine, but she also hopes to make a difference in the Spanish-speaking community, as she has a love for the language and the people who grew up speaking it.

Director of IT & Data Innovation- Deepen Goradia, a junior at South Brunswick High School in South Brunswick, NJ. He For years, Deepen has been a strong advocate for global educations and seeks to make a change in the global community by ensuring peoples of all demographics have resources to expand their knowledge and take advantages of the opportunities he has in the United States. To take steps closer to his goal, Deepen has founded the "Society of Young Innovators" and has become the president of his school's "She's The First" club. Both clubs have the main purpose of providing education to students who do not have the resources to do so effectively.

Public Relations Officer- Anika Khanderia, a junior at Singapore American School. She enjoys her math and science classes, and sees herself continuing to take courses in the STEM fields in the future. Always excited to explore new topics of interest, Anika found the perfect fit for her passions with Global Education Project Inc. - an organization that allows her to take her interest in the STEM field, and use it to help close the growing gap in education.

Education Enrichment Program Activities

Math

“Math Machine”

Materials needed

- Flash cards or paper that can be cut up into pieces
- Marker
- Empty cereal box
- juice/milk carton, dried and cleaned
- Tape
- Printer paper
- Colored pencils

Activity

1. Cut a slit towards the top and the bottom of the carton
2. Cut out two pieces of the cereal box, one bigger and long, one smaller and shorter.
3. Tape it into the cut up carton in a way that it makes a slide for something to slide through from top to bottom
4. Write down multiplication tables (questions on the front, answer on back) or other math functions on flashcards or cut up pieces of paper with marker
5. Use printer paper to cover the rest of the carton and use colored pencils to decorate.
6. Child can put multiplication machine to put in a multiplication question, and get the answer on the bottom and learn the tables as a result.

k- 4th grade



English

Banagrams

Material needed

- Banagrams game or scrabble letters

Activity

- The activity will help kids think of new words and try to use bigger words to get more points
- Purpose of game is just to make a word out of the letters you are given and branch off of the letters in that word to make more words and keep going until you have finished the letters in the pile.

4th-8th grade

Mini Tornado in a Bottle

Purpose: Teaching basic principles of centripetal force

Age Group: K-4th grade

Materials:

- Water
- 1 Liter Clear Plastic Bottle
- Glitter
- Dishwashing soap

Steps:

1. Fill the plastic bottle with water until it reaches around three quarters full.
2. Add a few drops of dishwashing soap.
3. Sprinkle in a few pinches of glitter (this will make your tornado easier to see).
4. Put the cap on tightly (Make sure the bottle isn't leaking!)
5. Turn the bottle upside down and hold it by the neck. Quickly spin the bottle in a circular motion for a few seconds, stop and look inside to see if you can see a mini tornado forming in the water. You might need to try it a few times before you get it working properly.

*Spinning the bottle in a circular motion creates a water vortex, which looks like a mini tornado. The water is rapidly spinning around the center of the vortex due to centripetal force (force directing objects/fluid towards the center of its circular path). Vortexes found in nature include tornadoes, hurricanes and waterspouts (a tornado that forms over water).

Multiplication Wars

Purpose: To teach basic multiplication and facts about multiplication

Age Group: 2nd-4th grade

Materials:

- Deck of cards
- Timer

Steps:

1. Shuffle the deck of cards and deal them face down, giving each player an equal number of cards until the deck runs out (best to have 2 players, but there can be more than 2 players!)
2. Assign picture cards (jacks, queens, and kings) a value of 10. Give aces a value of either 11 or 1 (players can choose whether or not they want the ace to be 1 or 11 when playing the game)
3. To play the game, each player turns two cards face up, reads the number sentence and gives the answer. For example, if a player draws a 5 and a 4, he/she says $5 \times 4 = 20$. If you draw a 7 and an 8, then your number sentence is $7 \times 8 = 56$. If your product is larger, you win the four cards and you put them at the bottom of your pile.
4. If each player has a number sentence with the same product, then it's war! Each player puts four cards face down and turns two of them up. The player with the largest product wins the eight cards.
5. Set the timer to 15 minutes for playing the game. When the timer goes off, stop the game, and have each player count their cards. The player with the most cards wins. If one player runs out of cards before time runs out, then the other player wins.

Vocabulary Bingo

Purpose: Building vocabulary

Age Group: 2nd-8th grade

Materials:

- Paper
- Markers
- Vocabulary List
- Bingo chips (coins or paper clips) or pencils

Steps:

1. Create bingo cards by drawing 4 vertical lines and 4 horizontal lines to form 25 squares. Write "BINGO" in the middle square (this will be the free space).
2. Each player should fill in their bingo card with vocabulary words from the list (make the list based on reading level.)
3. Once all cards are filled with words, begin calling out vocab clues (call out the definitions). Players must then identify the word being described based on the definition given and find it on their sheets. If a player has the identified word on their sheet, they can mark it with an X if using pencils or place a bingo chip on the word.
4. Continue playing until one player fills in 5 boxes down, across or diagonally and calls out "Bingo!".

Algebra Tic-Tac-Toe

Purpose: Learning to solve basic algebraic equations

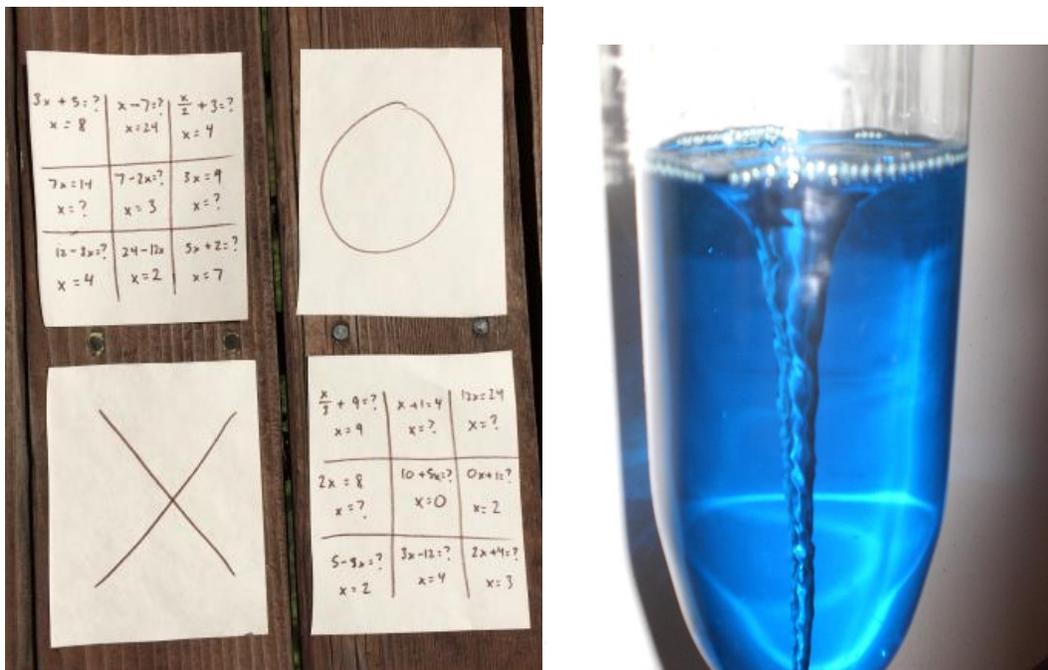
Age Group: 5th-8th grade

Materials:

- Marker
- 9 sheets of paper

Steps:

1. Take 9 sheets of paper, and draw a nine square tic-tac-toe grid on each sheet of paper using the marker.
2. Arrange the sheets of paper into a 3 x 3 grid with the tic tac toe grids facing up.
3. Write a random algebraic equation in each of the 81 spaces. For example, an equation can be something like: $3x+5=?$ $x=8$ (you can make the equations as challenging as possible if need be.)
4. Have the players take turns trying to solve the various problems contained within the grids.
5. If either player can successfully solve a problem, they can put either an X or an O in the square.
6. Whoever gets tic-tac-toe on a given sheet by solving three problems in a row on a given grid can turn the sheet over and mark it with an X or an O.
7. To win, a player must successfully get three sheets in a row.



Mystery Math

Subject: Math

Ages: K – 2nd grade

Materials:

- Colored foam sheets
- Scissors

Steps:

1. Cut out different shapes
2. Number these shapes with numbers between 0 to 100 (doesn't have to be 100 shapes)

3. Write the addition, subtraction, division, multiplication symbols on some shapes
4. Shuffle these shapes: keep the operation symbols separate from the number shapes
5. Ask student to choose some numbers and an operation symbol
6. Have the student solve the operation given by the shapes
7. Students can also make artwork with the shapes as they solve them
8. Challenge: for more advanced children, they can do area, average, mode, etc.



Vocabulary Jeopardy

Subject: English

Ages: 3rd – 8th grade

Materials:

- Index cards
- Markers/ pens

Steps:

1. Number the index cards: Six 100s, Six 200s, Six 300s, Six 400s, Six 500s
2. Write vocabulary words on the index cards by difficulty (100s = easy; 500 = difficult)
3. Set all 100s in a row, all 200s in a row.....etc.
4. Ask student to choose a card and ask them to spell the word on the card; you can ask them for the meaning and if they don't know the meaning you can tell them
5. You can keep score – give them points when they spell a word correctly
6. List of suggested words:

Easy	Medium	Hard
Anxious	Annihilate	Audacious

Boisterous	Concur	Conscientious
Conspicuous	Distraught	Endeavor
Deteriorate	Incredulous	Mercenary
Efficient	Notorious	Pseudonym
Inevitable	Simultaneously	Susceptible
Monotonous	Vengeance	Wrangle

Paper Helicopters

Subject: Science

Ages: 1st – 3rd grade

Materials:

- Scissors
- Helicopter sheets
- Paper clips

Steps:

1. Cut along all of the solid lines of the helicopter pattern
2. Fold the lower section (C&D) toward each other along the dotted lines
3. Hold the folded sections and place a paper clip at the end
4. Use a paperclip to fasten the lower sections together
5. Fold the top blades (A & B) in opposite directions

Vocab:

Gravity- the force that pulls the helicopter toward the earth. Drag- the air resistance to the downward motion of the helicopter. Thrust- what is produced if you throw the helicopter downward instead of dropping it. This force counteracts drag.

Science in Action:

When the helicopter falls, air pushes up against the blades, bending them up just a little. When air pushes upward on the slanted blade, some of that thrust becomes a sideways, or horizontal, push.

Q: Why doesn't the copter simply move sideways through the air?

A: Because there are two blades. Each gets the same push but in opposite directions. The two opposing thrusts work together to cause the toy to spin.

Questions for Expansion:

Did the helicopter rotate clockwise or counterclockwise?

How can you make it rotate in the opposite direction?

Does the height you drop it from affect its flight? (the speed that it falls, speed it spins, or the flight path?) / How does the weight (paperclips) affect the flight?

Education Enrichment Program Volunteers:

Maitreyee Kale



Swati Gupta



Cassie Donohue



Jerin Thomas

