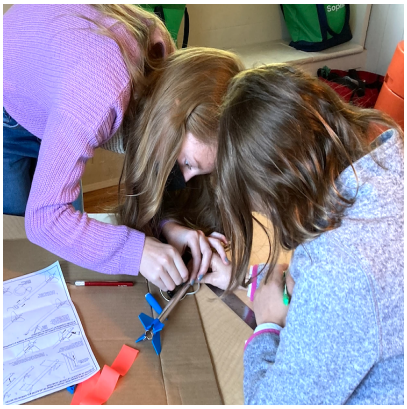


The New School Montessori: December 2021

Description

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The New School Montessori (TNSM)
3 Burton Woods Lane
513.281.7999
www.newschoolmontessori.com

New School Montessori students in 4th-6th grade were thrilled to make and set off their own rockets on The New School Montessoriâ??s blacktop. Their work began by studying the science that had come before, making this kind of event possible.

- Students looked all the way back to 400 BC when a Greek scientist propelled a pigeon along a wire using steam power
- to the Chinese igniting gunpowder for fireworks in 1232,
- to Newtonâ??s discovery of the 3 Laws of Motion in the 17th century,
- to Germansâ?? ballistic missiles fueled with liquid oxygen and alcohol in 1942.
- All of these discoveries led us to where we are today with humans launched into space.

Much like a balloon flies across the room as the pent up gas inside it escapes and thrusts the balloon forward. Rockets use escaping gas to propel them forward as well. To keep the rocket heading in the expected direction, stability is vital. Studentsâ?? rockets had to pass their stability test (swinging it in a circular motion and having the nose remain pointing forward) before they could move on to launch phase.

Students learned the names of each stage of flight, starting with the way up (launch, powered ascent, coasting flight) and ending with the way down (ejection charge, slow descent and recovery). Students counted out loud as the rocket reached its peak and used an altimeter, getting angle readings to determine the height their rocket achieved.

As you can imagine with â??rocket science,â?• thereâ??s a lot more that goes into it, and the students learned all about the thrust charge, the delay charge (white smoke) that lets you track its path, the ejection charge that sends out the parachute, the safety key, the ignition buttonâ?¦and all the rest. They waited for a beautiful clear day (just like NASA) and launched one rocket after another!

Virtual Open House on January 30, 2022 â?? Click here to learn more about it and to sign up.

Video of launch:





Ann Baumgardner, Communications Director

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Author
northavondale