Leonardo da Vinci Gets a Do-Over

By Mark P. Friedlander, Jr.

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This book begins on a school trip to Italy when three middle school students meet a man who claims to be the great Renaissance master Leonardo da Vinci and are they in for a treat. "Leonardo", brought back to life, is on a mission to better humankind. And the adventure begins...

Leonardo da Vinci was an artist, anatomist, engineer, and inventor. His passing marked the end of an era. This book retells Leonardo throughout his life highlighting some of his great works. The book comes with a teacher's guide that is cross curricular and full of great ideas to do in your classroom.

In addition to the guide, try the inquiry-based activity on the back page with your students.

Parachute Inquiry

One of Leonardo's ideas was a parachute and though he never got to test it out, it very much resembles parachute that we have today.

Students should build Leonardo's parachute. Once they have constructed the parachute they will need to test it to see if it works the way they predict it will. The first tests should be done with no weight on it and the students should write down all their observations about how it falls. For the second test ask them to add 1 paperclip to the ropes and observe how it falls. Again, they should record their observations and now compare the 1st and 2nd test. Pose the question: What will happen if you add more weight to the parachute? Let each group decide how many paperclips they would like to test and conduct that test recording their results. Post all the results and discuss what the data collected tells them.

Here's the challenge: Redesign the parachute to carry 5 paperclips with the slowest descent in the classroom.

Provide the students with a variety of recyclable materials, fabrics, plastic, different strings, and tape to create the parachute. You might want to limit the size of the parachute for the sake of materials.

Test two parachutes at a time until the parachute that descends the slowest is the last one standing. You can also time the descents and record the times and characteristics of each parachute.

Display all parachutes and discuss what worked and what didn't. Give each group a chance to tell what they would change if they could redesign their parachute.

Bring it back to Leonardo by reminding students that he was a man of trial and error always trying to improve his inventions and ideas.