

WHERE SCIENCE HISTORY AND ART CONNECT

To: Raven Hill friends

From: Cheri

Date: July 26, 2025

Re: *Balancing act!*

The concept of center of gravity was first explored by Greek mathematicians and philosophers, especially Archimedes. Around 250 BCE, the Greek scientist Archimedes of Syracuse explained the idea of the center of gravity. He studied levers, balance, and floating objects and showed that every object has a point where its weight is perfectly balanced. This is what we call the center of gravity. Archimedes even used this concept to explain how ships float and how levers work. His work still helps us build bridges, design airplanes and explore balance today, just like in several of Raven Hill's indoor and outdoor exhibits!

Balance sculpture in motion



On the way to the Connections Trail by the Schoolhouse, the Balance sculpture defies gravity while honoring it. Stone and metal are carefully placed to keep the whole structure in balance at its center of gravity. That magic spot is where all the weight is equally distributed, allowing many sculptures to incorporate movement into the exhibit.

Balance beam



Log balance



Along the Connections Trail, several balance beams can be found and enjoyed. From a simple beam to a more uneven strata beam to a log balance, there are plenty of opportunities for visitors to experience center of gravity. In addition, a trip back to the Treehouse invites visitors to use downed trees as natural balance beams.

Inside the museum, you can balance birds on beaks, pencils on fingers and see a tightrope walker on a unicycle created of horseshoe nails and washers welded together. When something balances, you've found its center of gravity—a special balancing point. From spinning tops to magnetic towers and balancing birds, visitors explore hands-on how weight, shape, and position affect stability. These exhibits invite everyone to find that “sweet spot” where science meets play—and where objects teeter exactly right.

Pencil balance



Raven Hill's mission is all about balance: between science, history, and art; between thinking and doing; and between curiosity and understanding. Like any balanced object, Raven Hill brings different forces together, which makes them grounded, dynamic and always ready to tip toward different discoveries for visitors. At the Center, balance or center of gravity is more than just a science concept. It's a guiding principle that connects everything we do.

Whether you're enjoying the Balance sculpture, checking out a tabletop toy or exploring your own ideas, remember that finding your own center of gravity is the first step to standing tall and reaching further. We encourage visitors to use their hands, minds and creativity to explore their world in different ways. Finding the perfect balance is exciting! At Raven Hill, learning is better when everything connects and balances! We invite you to come build, stack, spin, and balance here soon.

DumDum's birthday bash



Even DumDum has his balance point! He is a big, heavy sculpture, but DumDum stays upright because his center of gravity is low and balanced right over his base. That makes him stable, just like the real Moai statues on Easter Island! **Update:** For those who missed DumDum's 20th birthday party, it rocked! Over two dozen guests turned out to celebrate this iconic sculpture in Raven Hill's Ancient World. DumDum is named after the popular Easter Island head in the 2006 movie, “Night at the Museum”. In the movie, DumDum greets visitors by saying, “DumDum, give me gum gum.” Last Sunday, games and activities swirled around gum, bubbles and rocks! There was

even a scavenger hunt to find two DumDum miniatures. Raven Hill would like to extend a special thanks to the girls who planned and hosted DumDum's birthday party!

Summer is a wonderful time to visit the Center. Raven Hill is open weekdays from 10am to 4pm and weekends—noon to 4pm on Saturdays; 2pm to 4pm on Sundays, plus holidays and other times by appointment. Admission is \$10 per person. The Center is great for youngsters & adults. For more information, email info@miravenhill.org or call Cheri at 231.536.3369. Have a wonderful week.

Cheri

DumDum loves gum gum

