

All About Balance

Grade Levels PK-3

Educational Setting

Both in school and/or out of school.

Informational Webinar

- Jan. 17, 3:45 p.m. <u>REGISTER HERE</u> Passcode: 665321
- Jan 23, 4:30 p.m.
 <u>REGISTER HERE</u>
 Passcode: 183131

Recordings on Iowa STEM's Website

Award Provides

- Professional learning that leads to one undergraduate/graduat e credit, or 15 clock hours
- Classroom kit including, but not limited to:
 - o steppingstones
 - o hula hoops
 - o tinker toys
 - o balance bar
 - double set of wooden mini unit blocks
 - o suspended pan balance scale
 - wide assortment of tops
 - o balance games
 - materials to build mobiles
 - access to a Google
 Drive with more ideas for implementation
- A participant stipend of \$320.

2025-26 STEM Scale-Up Program Summary

Join us in *All About* Balance and watch your children's curiosity about balance explode with your classroom kit of materials. Balance is key in human movement, an aesthetical element of art, & key in the design and engineering of technology. *All About Balance* is the latest on a menu of lowa grown early STEM experiences receiving national and international attention. Why? They



immerse children in *doing* STEM every day. An added bonus is that children are compelled to master the tools of reading, writing, and mathematics to communicate their excitement about their STEM learning.

All About Balance experiences and materials were developed in partnership with lowa researchers in child development and curriculum, lowa teachers, and lowa children. Our professional learning supports PK-3 teachers in developing a framework that capitalizes on the reciprocal relationship of STEM and literacy learning. Within this framework, daily independent STEM investigations occur alongside the daily independent literacy investigations that many teachers have already established in PK-3 classrooms. Many educators implementing this framework tell us integrative STEM and literacy has brought them joy in teaching and learning. For STEM to be meaningful to young learners, four things must be in place:



- Children must be able to **produce** an action
- The result of their action must be immediate
- The result of their action must be observable
- There must be something for children to vary

All About Balance fits these criteria well. Children can **produce** the action of positioning objects with an **immediate** result of that action, **observe** the state of balance, then **vary** the spatial positions of objects until a state of balance or stability is reached. Special materials were co-designed with and produced by UNI's Dept of Applied Engineering and Technical Management. In the

development of our moveable fulcrum, one experienced urban construction manager exclaimed, "That's how construction cranes work!" The kit materials are open-ended and while designed for PK-3 children, will also engage older children and adults. *All About Balance* materials are designed to break down for easy storage and will not require a large section of the classroom when in use. The body balance experiences are helpful and engaging for indoor recess time in lowa's frigid winters.



Additional Cost(s) to Awardee During Award Period None.

Approximate Sustainability Cost(s) After Award Period

Materials will last for years with typical classroom use.

Website

Regentsctr.uni.edu

Video

All About Balance

Social Media Facebook

@RegentsCenterUNI

Requirements to Implement the Program

- Attend and participate in two professional development sessions and posting on a private social media page with other educators and the instructor.
- Participate in the STEM Council Scale-Up Educator Survey.

lowa Standards Alignment

All About Balance experiences are applicable to many of the lowa Early Learning Standards and lowa's K-2 Science Standards and are highlighted in professional learning. Constructing both stable and kinetic structures are contexts for rich and meaningful engagement in engineering design. In the act of construction, students engage in the mathematics of spatial thinking, geometry, measurement, and collecting and analyzing data. lowa's Standards for Literacy Language, Speaking and Listening, and Writing are addressed as children participate in discussion about balance and stability, and document their thinking. They recount and describe their construction experiences with appropriate facts and relevant details. They encounter unknown and multiple meanings of words and phrases as they seek to explain and engage in scientific argumentation. Students develop 21st Century Skills such as creativity and innovation when they have new and worthwhile ideas to build stable or kinetic structures. Finally, our balance materials and experiences support children's physical development in proprioception to have better control over their bodies that can positively impact fine motor skills. Research shows that proprioception is linked to skills in reading, writing, concentration and body control.

Professional Development

All About Balance Instructors are Master Educators experienced in teaching and learning with young children. Awardees will engage in two 6-hour sessions of research-based active and playful high-quality professional learning and stay connected via private social media. Educators will earn one UNI graduate credit -or- 15 clock hours and a \$320 stipend after attending session 2.

In the sessions, educators will engage in teacher play to explore balance and stability using the same materials they will offer their children in the classroom. The first session will occur on a weekday in July or August. Each educator will leave with their classroom kit. The second session will take place on a Saturday in October or November after educators have had an opportunity to experience balance and stability with their children.

Duration: Two six-hour days plus regular communication with peers and the instructor through private social media.

Date(s): The first session will be held on a weekday in July/August and the second session held on a Saturday in October/November.

Location: Regionally depending on the number of awards.

To Learn More or To Apply: educate.iowa.gov/STEM/ScaleUp