

All About Balance

GRADE LEVELS:

PreK-2

Educational Setting:

Both in school and out of school.

Award Provides:

A classroom kit which includes:

- steppingstones
- rocker board
- yoga balance poses for young children
- tinker toys to investigate building stable and kinetic structures
- left / right balance board
- double set of wooden mini unit blocks
- suspended left/right balance scale
- suspended 360° balance board
- variety of tops (tippe, teetotum, swirler, plunger, spring launched)
- optical illusion tops
- materials for children to build simple wooden tops
- access to a Google Drive with ideas and suggestions on how to introduce, implement, and assess balance experiences and integrate literacy
- mobile stand with arms and objects to hang

Professional Learning:

Led by early childhood experts with classroom experience, includes:

2024-2025 STEM Scale-Up Program Summary:

All About Balance teaches children to become more curious and engaged as they actively explore the role of balance within the world of objects and with their own bodies. Balance is essential to human movement, the design and engineering of technology, and the aesthetic elements of art.

All About Balance highlights STEM and literacy by immersing students in doing STEM every day. These hands-on experiences create a desire within children to master the tools of reading, writing, and mathematics, helping them communicate more effectively about science learning. PK-3 educators implementing this program report the integrative approach has brought joy in teaching and learning.



For STEM to be meaningful to young learners, four tenets must be in place:

- 1) children must be able to **produce** an action by themselves,
- 2) the result of their action must be **immediate**,
- 3) the result of their action must be **observable**,
- 4) and there must be something for children to **vary**.



All About Balance fits these measures well. For example, children can **produce** the action of positioning objects with the **immediate** result of that action, **observe** the state of balance, and then **vary** spatial positions until the objects reach a state of balance or stability.

Each kit contains special materials that were co-developed and manufactured through a partnership with UNI's Dept. of Applied Engineering and Technical Management. In the development of our moveable fulcrum activity, one experienced urban construction manager exclaimed, "That's how construction cranes really work!"



These materials are open-ended, and, while designed for PK-3 children, they will attract and engage older children and adults.

All About Balance materials break down for easy storage and do not require a large section of classroom space when in use. Body balance experiences will also prove helpful for indoor recess.

- ongoing support through a private social media platform.
- one UNI graduate or undergraduate credit (based on educator's needs) that also serves as a License Renewal Credit for degreed educators.
- \$240 participant payment when educators attend both face-to-face sessions.

Additional Cost(s) to Awardee in 2024-2025:
None

Approximate Sustainability Cost After Award Period:
Materials will last for years with typical classroom use.

Website:
Regentsctr.uni.edu

Videos:
[All About Balance](#)

Social Media
Facebook:
Regents' Center for Early Developmental Education
Instagram:
ia_regents_center

Informational Webinar(s):

- Friday Jan 12 @ 3:45
- Thurs Jan 18 @ 3:45
- Friday Jan 19 @ 3:45
- Thurs Jan 25 @ 3:45
- Friday Jan 26 @ 3:45

[Link to attend](#)

Requirements to Implement the Program:

1. Educator(s) will attend two six-hour days of highly interactive professional development. One before the start of the school year when the educator receives the classroom kit. One in the fall after implementation begins.
2. Educator(s) receive a minimum of 3 hours of online interaction with peers and the instructor throughout the fall semester.
3. Upon attending both sessions of professional learning, educators will receive \$240 participant payment.
4. In spring, educator(s) participate in the Iowa STEM Educator Survey.

Iowa Standards Alignment:

Balance experiences are applicable to many of the **Iowa Early Learning Standards** and **K-2 Next Generation Science Standards**.

- 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.



The program addresses Iowa's **Literacy Standards of Language, Speaking and Listening, and Writing**, as children participate in conversations about balance and stability.

- They recount their construction experiences with appropriate **facts** and relevant descriptive **details**.
- They encounter new **vocabulary** and multiple meanings of words as they seek to explain and engage in scientific **argumentation**.

In addition, research shows that work on balance skills helps children to develop better **language** skills, improve **reading** and **writing skills**, improve **concentration** and **body control**, and positively impact **fine motor skills**.

Professional Development:

Session One: (a weekday in July/August) At the end of the first session, each educator will leave with a classroom kit.

Social Media Platform: Educators will sign up to a private social media platform to post photos or videos, seek advice, or ask a question. Many teachers tell us this network is one of their favorite parts of the program.

Session Two: (a Saturday in October/November) Awardees investigate balance with materials but with an added focus on how to document learning and integrate STEM with literacy.

Location: In your STEM hub region—TBD.

STEM Scale-Up Program Application Link: www.iowaSTEM.org/Scale-Up-Application